NATIONAL RESOURCES COMMITTEE

CONSUMER EXPENDITURES IN THE UNITED STATES

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CONSUMER EXPENDITURES
IN THE
UNITED STATES

ESTIMATES FOR 1935–36

NATIONAL RESOURCES COMMITTEE

UNITED STATES GOVERNMENT PRINTING OFFICE WASHINGTON : 1939

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NATIONAL RESOURCES COMMITTEE
NORTH INTERIOR BUILDING
WASHINGTON

March 31, 1939.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT:

We have the honor to transmit herewith a report on "Consumer Expenditures in the United States", which is the companion volume to the study of Consumer Incomes previously forwarded to you and published last year. These reports have been prepared under the direction of our Industrial Committee by Dr. Hildegarde Kneeland and her staff.

The facts disclosed are significant not only to business men concerned with the market for consumers' goods, but also to all citizens concerned with problems of economic opportunity in a democracy.

Sincerely yours,

HAROLD L. ICKES
Secretary of the Interior, Chairman

HARRY H. WOODRING
Secretary of War
HENRY A. WALLACE
Secretary of Agriculture
HARRY L. HOPKINS
Secretary of Commerce
FRANCES PERKINS
Secretary of Labor

FRANCIS C. HARRINGTON
Works Progress Administrator
FREDERIC A. DELANO
CHARLES E. MERRIAM

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HENRY S. DENNISON
BEARDSLEY RUML

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The report is based primarily on data from the Study of Consumer Purchases, a Works Progress Administration project conducted by the Bureau of Home Economics of the United States Department of Agriculture and the Bureau of Labor Statistics of the United States Department of Labor. The plans for the project were formulated by the National Resources Committee and the two operating bureaus, with the cooperation and advice of the Central Statistical Board and the Works Progress Administration, and the study was administered under the guidance of a committee representing the five cooperating agencies. Grateful acknowledgment is made of the generous cooperation given by the two bureaus in making the data from the project available for use in this report. Appreciation is especially due to Dr. Day Monroe, Chief of the Economics Division and Director of the Study in the Bureau of Home Economics, and to Dr. Faith M. Williams, Chief of the Cost of Living Division and Dr. A. D. H. Kaplan, Director of the Study in the Bureau of Labor Statistics.

Acknowledgment is also made to the Works Progress Administration for making available the services of statistical and clerical workers in Richmond, Va., in the preparation of certain estimates presented in the report, and to the Young Women's Christian Association, the Pennsylvania Emergency Relief Board, the Bureau of Labor Statistics, and the Bureau of Home Economics for providing access to unpublished statistical data from earlier studies.

NATIONAL RESOURCES COMMITTEE

NORTH INTERIOR BUILDING

WASHINGTON

March 16, 1939.

Hon. FREDERIC A. DELANO,
Chairman, Advisory Committee,
National Resources Committee,
Washington, D. C.

MY DEAR MR. DELANO:

We have the honor to transmit herewith the second report developed from the studies of Consumer Incomes and Expenditures conducted by Dr. Hildegarde Kneeland and her staff under the general direction of the Industrial Committee.

This report, entitled "Consumer Expenditures in the United States", is based primarily on data obtained in the Study of Consumer Purchases, a Nation-wide Works Progress Administration project conducted by the Bureau of Home Economics and the Bureau of Labor Statistics with the cooperation of the National Resources Committee and the Central Statistical Board. It shows how families and individuals in different income groups spend their incomes and presents a broad national picture of the division of expenditures for the major classes of consumer goods and services.

We believe that the value of these materials warrants the early publication and wide circulation of this report.

Sincerely yours,

LAUCHLIN CURRIE
CHARLES W. ELIOT, 2d
MORDECAI EZEKIEL
LEON HENDERSON

THOMAS C. BLAISDELL, Jr., *Chairman*
ISADOR LUBIN
GARDINER C. MEANS
HARRY D. WHITE

CONSUMER EXPENDITURES IN THE UNITED STATES

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INTRODUCTION AND SUMMARY

The importance of consumer purchasing power in the modern economy has become a topic of general interest during the past few years. The thinking of the whole country has become oriented to the fact that we have at our command a rich abundance of natural resources and an undreamt-of capacity to convert this natural wealth into useful goods and services. We are acutely aware that the major economic problem confronting us is to find ways of releasing this potential productive power, of using it fully and continuously to further the well-being of the American people. And we realize that we cannot solve this economic problem unless the consumers of the Nation are able to buy the output of goods and services which industry can produce. If we are to utilize our capacity for mass production, we must match it with capacity for mass consumption.

It is not sufficient, of course, that consumers have control over a large volume of purchasing power, or that industry turn out a large volume of goods and services. Industry must produce the particular goods and services which consumers desire to purchase, and must make the particular capital investments required to provide for future consumption demands. Without such balance between production and consumption, enduring prosperity is impossible.

Knowledge of the consumption habits and consumption needs of the American people is thus basic to any attempt to formulate effective programs and policies for the use of our productive resources. Business, labor, Government, the public at large, must have a background of factual information on the consumption aspects of the economy, against which to evaluate the many current proposals for economic recovery and expansion. We must know what incomes the Nation's consumers receive, and how they spend their incomes. We must know how these expenditures vary at different income levels and among different groups of the population. We must know how present consumption demands compare with the potential consuming capacities of the Nation and with the requirements of an "American" standard of living.

The Scope of the Study

This report on consumer expenditures in the United States sketches the broad outlines of such a picture of the Nation's consumption. The results form part of a larger study of consumption demands in relation to productive resources undertaken by the National Resources Committee. The first report from this study, recently published,[1] showed the magnitude of consumer income and how the total income was divided among the various groups of the population in 1935–36. The present volume shows how these incomes were used by the Nation's consumers—how much was spent for food, clothing, housing, and other major classes of consumer goods and services; how much was paid out as gifts and as certain personal taxes; and how much was saved.

The Types of Estimates Included

This picture of the consumption of the American people is first presented in terms of the average patterns of consumer spending at different levels of income. Separate estimates are given for the two main groups of income-spending units—the 29 million families of two or more persons, and the 10 million "single" individuals living alone or as lodgers. Estimates of the spending patterns of different groups of American families will appear in a later report.

These average patterns of family and individual spending serve as a basis for the second set of estimates included in the present report, showing the total "national market basket" in 1935–36, the total savings of consumers in that year, and their total outlays for gifts and for income taxes and certain other personal taxes. To complete the national picture, estimates are also presented of the consumption of the 2 million persons—less than 2 percent of the total population—living in institutions of various types or in military and naval posts, labor camps, and other quasi-institutional groups. In addition, an indication is given of the magnitude of expenditures for those consumer services, such as public education and free medical care, which were supplied to the population without direct charge by the Government or by nonprofit private organizations.

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[1] *Consumer Incomes in the United States: Their Distribution in 1935-36*, National Resources Committee, August 1938, 104 pages, 30 cents.

In addition to these estimates of the actual consumption of the American people in 1935–36, consideration is given, in Appendix C of the report, to the question of the effect of the volume and distribution of purchasing power on consumer demands and consumer savings. The computations presented are in no sense forecasts of future consumer demand, nor do they constitute blue prints of desirable consumption for the Nation. They serve merely to indicate the general direction and magnitude of differences in consumer disbursements that might be expected to develop with differences in consumer incomes when all other conditions affecting national consumption are arbitrarily assumed to remain as they were in 1935–36. Limited and hypothetical as such calculations necessarily are, they make, it is believed, a valuable addition to our understanding of the "working" of our economic system.

The Goods and Services Covered

The estimates of consumer spending for the year 1935–36 cover all of the goods and services purchased by American families and individual consumers in the retail market. These varied money expenditures are summarized under 14 broad categories of consumption: food, housing, household operation, furnishings, clothing, automobile, other transportation, medical care, personal care, recreation, tobacco, reading, education, and "other items."[2] In a later report on family patterns of spending, these major categories of consumer outlay will be subdivided to show separate expenditure figures for a more detailed list of items.

In addition to goods and services purchased during the year, the estimates include two important types of consumption items obtained without direct money outlay from current incomes: First, the imputed rental value of homes occupied by their owners and of other housing not directly paid for; and second, the imputed value of food produced by rural families for their own use and of ice and fuel obtained free from the farm and countryside.[3]

These two types of imputed expenditures do not, of course, complete the list of goods and services consumed by the Nation in the course of the year without direct payment from current incomes. They omit, for example, the value of the services of the housewife and other members of the family in the productive activities which still remain in the modern home. Omitted, also, is the use value of all durable goods other than owned homes—automobiles, furniture, household equipment, and so forth—purchased in previous years. Further omissions are the value of gifts "in kind" received during the year from relatives and friends,[4] and the value of free consumer services provided by public and private agencies.[5] While it was clearly not feasible to impute a money value to all such goods and services, and to add them as items of income and outgo at each income level, it should none the less be recognized that they constitute substantial contributions to the real income of the Nation.

The estimates of consumption included in this study relate in every instance to ultimate consumption—to the final use of goods and services in satisfying the needs and desires of the American people. Intermediate consumption of commodities and services by industry in the process of production is excluded, except as it appears indirectly as part of the price paid for the final good or service. The estimates for automobile expenses, for example, include the purchase and operating costs of passenger cars for family or personal use, but not the costs of cars used for business purposes. Where the "family car" is used both for personal and for business use, as is frequently the case with farm families, only that part of the total expense chargeable to personal use appears on the consumption side of the national ledger.[6]

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[2] For brief description of items included under each heading, see pp. 24–27. For further definition, see Appendix B, pp. 93–98. The report shows consumption in terms of dollar values only; no estimates are included of the physical quantities of commodities consumed. It should be noted that sales taxes and excise taxes are included in the expenditures for the commodities and services to which they apply, and that taxes on owned homes and on automobiles are included in the expenditures for those categories of consumption. It should also be noted that all purchases of durable consumers goods made during the year, except payments on homes and improvements to homes, are considered current expenditures, even though they are not entirely consumed within the current year, and even though a balance may remain due on them at the end of the year.

[3] The imputed value of these consumption items appears, of course, both as income and as expenditure. These two types of "nonmoney" items were selected for inclusion in the estimates for three reasons: First, because of their magnitude; second, because it was feasible to estimate their imputed money value; and third, because their omission would have made it impossible to classify rural and urban families, and home-owning and renting families, by comparable income levels. For further explanation of the imputed items included and for methods of deriving imputed values, see Appendix B, pp. 93–95 and 99.

[4] The money income *spent* by families and single individuals for gifts "in kind" (Christmas presents, etc.) to other families and single individuals is accounted for in the patterns of income use, under the same main heading as gifts in cash and contributions made to the church and for philanthropic purposes, but it was not found feasible to estimate the value of gifts "in kind" *received* by families and individuals, for inclusion as items of income and of corresponding consumption "expenditure." Gifts received in the form of money and used for current consumption needs are, however, included in income and are accounted for in the patterns of spending under the various consumption headings. Relief received "in kind," as well as in cash, is also accounted for in income and in expenditure. For further explanation, see Appendix B, pp. 99 and 131.

[5] In this connection it should be remembered that the estimates of consumer income, and hence of consumer expenditures, include some items which were necessarily counted twice—first, in the income and expenditures of the family or individual originally receiving the item, and second, in the income and expenditures of the family or individual to whom it was transferred. Gifts of money made by one family to another may be cited as an example of such double counting. On the other hand, certain other types of gifts, such as contributions to religious organizations, may be regarded as payments for services rendered, rather than as transfers of income. To the extent that tax payments were used to finance direct relief, such amounts are included both in the disbursements of the families paying the taxes and of those receiving the relief. It must be remembered, however, that consumer outlays for taxes also include indirect payments for services supplied by governmental agencies, such as public education and medical care. For discussion of the value of these free services, see part II, section 5.

How the Estimates Were Prepared

These estimates of the Nation's consumption are based primarily on data collected in the Study of Consumer Purchases—a Works Progress Administration project conducted by the United States Bureau of Home Economics and the United States Bureau of Labor Statistics, in cooperation with the National Resources Committee and the Central Statistical Board.[7] The study provides for the first time in American statistical history an extensive and comparable body of data on the spending habits of the various major groups of American consumers. Detailed information on expenditures and savings during a 12-month period in 1935 and 1936 were secured from a sample of more than 60,000 families living in cities of different sizes, in villages, and on farms in 30 different States.[8]

These data, classified by income level according to occupation, color group, family composition, type of community, and region, provided the basis for average patterns of consumer spending for 99 major groups of families. Similar patterns for single men and single women were built up from less extensive sample data available from the Study of Consumer Purchases and from various supplementary sources.

Average consumption patterns for broad groups of the population and for the Nation as a whole were obtained by weighting the patterns for the component groups of families and single individuals according to their relative importance at each income level. The population weights for this purpose, and for estimating the aggregate consumption of the Nation in 1935–36, were derived in the preceding study of consumer incomes in the United States.[9]

The Value of the Estimates

The results of the study provide by far the most detailed and comprehensive picture yet available of the consumption demands of different groups of American consumers. Up to the present time, relatively little attention has been given to the consumption aspects of the economy. Only one previous study of the Nation's consumption—that of the Brookings Institution for 1929[10]—has been made on the basis of data showing the actual outlays of families and single individuals at different income levels. The sample expenditure data available for this earlier study, moreover, were scanty and heterogeneous and permitted the construction of estimates for only three major groups of consumers—farm families, nonfarm families, and unattached individuals—and for only five broad categories of disbursement—food, attire, home maintenance, "other living," and savings.

Studies of national consumption based on over-all industrial data have been somewhat more numerous. During the past few years, in fact, several such estimates have appeared, utilizing data from the census and from a wide variety of Government reports and trade sources.[11] Only one of these studies, however, relates to a year later than 1931, and none offers a breakdown of the national aggregate expenditures by income classes or by other component groups of consumers. While such national estimates are extremely useful in showing how the total consumer income of the Nation is apportioned among the different classes of goods and services, they reveal neither the structure of the consumer market nor the relationship of national consumption demands to consumer incomes and to other variable factors influencing the spending patterns of American consumers.

The present estimates are of value not only in providing national consumption aggregates for a more recent year, but also in revealing how various segments of the population share in the total consumption expenditures of the Nation and in the total volume of consumer savings. The average spending patterns for different consumer groups, moreover, should prove very useful tools for analyzing market demand, evaluating standards of living, adjusting wages, developing taxation policies and housing programs, and many other purposes. They provide, in addition, a convenient and flexible means for gauging the changes that might occur in national expenditures and savings if total consumer income should increase or decrease in size or its distribution alter.[12]

The results of the present study are, of course, subject to distinct limitations because of the inadequacy of the sample data for certain groups of consumers. These shortcomings are indicated at relevant points in the discussion.[13] Despite their acknowledged limitations, the findings are believed to convey a reasonably accurate picture of the consumption demands of the American people, and of the variations that occur with differences in consumer incomes. They fill a conspicuous gap in our statistical knowledge of the national economy, and should prove of value to many groups and agencies in considering a wide variety of current and urgent economic problems.

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[6] For method of apportioning the total expense, see Appendix B, p. 96.

[7] The study was administered under the guidance of a Steering Committee and a Technical Committee, each composed of representatives of the five cooperating agencies. The membership of these committees was as follows:

Steering Committee.—Stuart A. Rice, chairman, representing Works Progress Administration (now with the Central Statistical Board); Louise Stanley, Bureau of Home Economics; Isador Lubin, Bureau of Labor Statistics; Gardiner C. Means, National Resources Committee; Morris A. Copeland, Central Statistical Board.

Technical Committee.—Hildegarde Kneeland, chairman, National Resources Committee; Day Monroe, Bureau of Home Economics; Faith M. Williams, Bureau of Labor Statistics; Milton Forster, Works Progress Administration; Edwin M. Martin, Central Statistical Board.

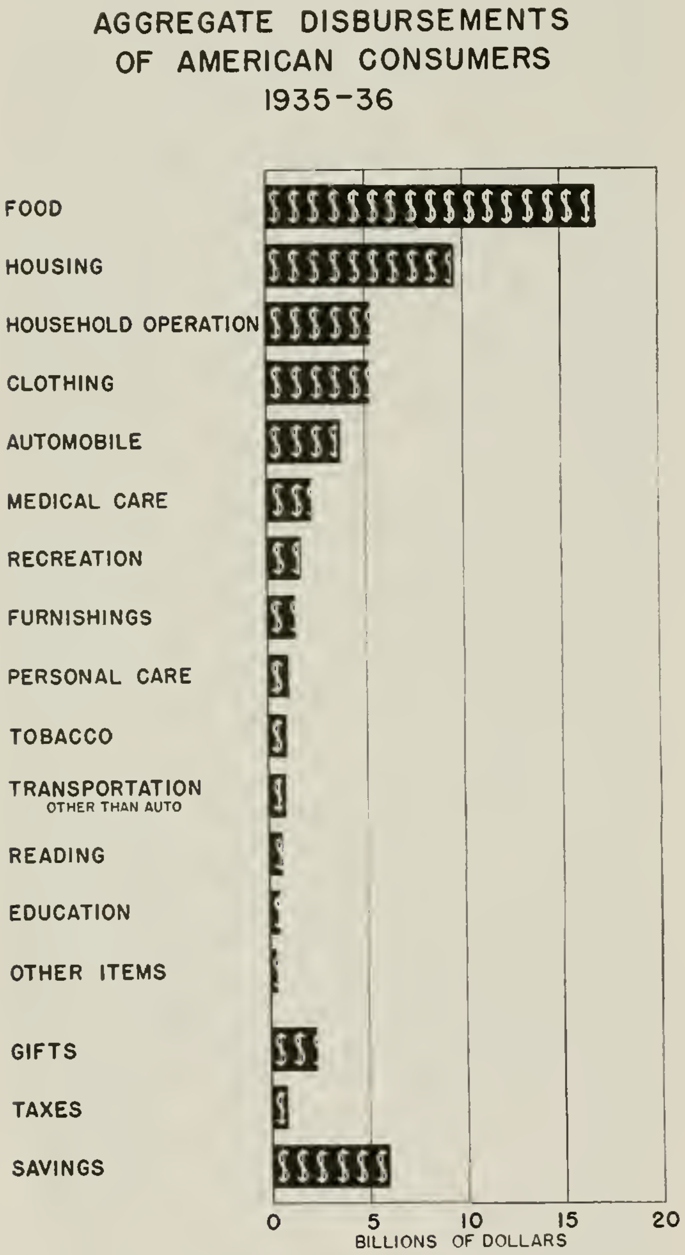
[8] For further description of the Study of Consumer Purchases, and for list of the sample communities and the total number of schedules utilized in building up the consumption estimates presented in this report, see Appendix B, pp. 102–108.

[9] See footnote 1, p. 1. These estimates of the distribution of consumer incomes were based primarily on data on family incomes obtained from a random sample of nearly 300,000 families in the Study of Consumer Purchases.

[10] Leven, Maurice; Moulton, Harold G.; and Warburton, Clark. *America's Capacity to Consume*, the Brookings Institution, Washington, D. C., 1934. For comparison of the results of the two studies, see part II, section 6.

[11] For reference to these studies, see part II, section 6.

[12] For examples of such use of the average spending patterns, see Appendix C.



BASED ON TABLE 7

Chart 1

Each dollar symbol represents $1 billion of aggregate disbursements.

Note.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

The Summary Picture of National Consumption

In summarizing the findings of the study, we can first examine the consumption pattern of the Nation as a whole for the year 1935–36. Here it is possible to consider together the 29,400,300 families of two or more persons and the 10,058,000 men and women living as lodgers or servants in private homes, rooming houses, and hotels, or maintaining homes of their own as one-person families. These 39 million "consumer units" included over 98 percent of the total population and received nearly 99 percent of the total consumer income. The consumption expenditures of the remaining 2 million consumers—those living in institutional groups—were made, for the most part, on an institutional basis and are not directly comparable with the disbursements of the rest of the population.[14]

The total volume of income flowing into the hands of the Nation's families and individual consumers during 1935–36 was approximately $59.3 billion. Out of this amount, $50.2 billion, or about 85 percent, was spent for current consumption; $2.2 billion, or nearly 4 percent, was used for gifts to relatives and friends and for contributions to the church and to philanthropic agencies; and about $900 million, or 1½ percent, was paid out as income taxes, poll taxes, and certain minor personal property taxes.[15] The remaining $6 billion—10 percent of total income—was saved. The amounts devoted to these different purposes are shown graphically in chart 1; the exact figures will be found in a later section of the report, in table 7.

The $50 billion used for current living expenses covered, of course, a wide and varied range of commodities and services—from apples to automobiles, movies to Mediterranean cruises, postage stamps to permanent waves. However, when we bring all of these expenditures together under a few broad headings, we find that the three major consumer wants—food, shelter, and clothing—absorbed over three-fourths of the total outlay for consumption, and nearly two-thirds of the total income received.

Food claimed by far the largest share of the outlay, as chart 1 shows. It accounted for approximately $17 billion, or 29 percent of the total income. Almost $15 billion of this amount represents money expenses for food purchased in stores and restaurants, while about $2 billion covers the imputed value of home-produced food.

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[13] See particularly pp. 17–18, 27, 62 and Appendix B, pp. 107, 127, 130–131, 136, 142, 146–147. See also the preceding report *Consumer Incomes in the United States*, pp. 2, 18, and 30.

[14] For division of total consumer income among families, single individuals, and institutional residents, see preceding report *Consumer Incomes in the United States*, table 1. For consumption of institutional residents, see pp. 62–64 below.

[15] For explanation of tax figures included in the study, see pp. 7–8, 27–28, 57 and 98.

Housing came second in order of outlay, taking $9.5 billion, or 16 percent of income. Here also only part of the total amount—about $7.1 billion—represents money expenditure, the remaining $2.4 billion including the imputed value of the use of owned homes and rented farm homes, and of housing received rent-free.

Household operation formed the third largest group of items, with a total expenditure of $5.3 billion—9 percent of total income. When we add the $1.4 billion expenditure for furnishings to the outlays for housing and household operation, we find that the total share of shelter in the Nation's consumption pattern came to a little over $16 billion—almost as much as the amount devoted to food.

Clothing ranked fourth in the list of goods and services, almost equalling the $5.3 billion expenditure shown for household operation.

Automobile expenditures, it is interesting to note, reached fifth place, with a total of $3.8 billion for operating costs and for cars purchased during the year for personal use. This figure is in striking contrast with the total outlay of $884 million made by consumers for all other means of transportation combined—streetcar, subway, taxi, bus, railroad, steamship, airplane, motorcycle, rented automobile—and horse-and-buggy. Almost 6½ percent of total consumer income was given to "the family car," and only 1½ percent to all other modes of transportation.

The total amount spent for medical care came to $2.2 billion, slightly less than 4 percent of total family and individual income. This outlay, however, covered only a little over three-fourths of the total medical bill of the Nation; the remainder, estimated at approximately $650 million, was met by public and private agencies supplying free medical services to part of the population.

Expenditures for recreation were next in order of magnitude, totaling a little over $1.6 billion. Personal care and tobacco each claimed approximately $1 billion, and reading somewhat more than one-half a billion.[16]

Except for a few miscellaneous items accounting for about $300 million, education showed the smallest outlay on the list, just over $500 million, or less than one percent of consumer income. But here, as with medical care, the expenditures made directly by families and individual consumers cover only part of the total outlay of the Nation. In fact, almost five-sixths of the costs of education during 1935–36 was met through public and private schools. The one-sixth paid for from personal incomes, shown in chart 1, covered school books and supplies for all of the population and tuition at private schools and special lessons for the more well-to-do groups.

Spending and Saving at Different Income Levels

Turning now from this summary picture of consumer spending, let us see how these national outlays were divided among different income groups in the population.

As the preceding report has shown,[17] one-third of the Nation's 39 million families and individual consumers had incomes of less than $780 during 1935–36. Another third received between $780 and $1,450, while the incomes of the top third varied from $1,450 to over a million dollars. Dividing this wide range of incomes into several income levels, we find that 15 percent of all consumer units—nearly half of the upper third—had incomes between $1,450 and $2,000; 11 percent received between $2,000 and $3,000; 4½ percent between $3,000 and $5,000; and about 2 percent between $5,000 and $15,000. Only one-half of 1 percent of all families and individual consumers had incomes of $15,000 and over.

How did these various income groups share in the total disbursements of the Nation?[18]

Total Expenditures for Current Consumption

Let us consider first how the $50 billion spent for current consumption was divided by income groups.

As chart 2 shows, the 13 million families and individual consumers with incomes under $780 spent about $7 billion on current living expenses—or 14 percent of the total consumption outlay. In terms of average expenditure, this amounted to $550 per consumer unit for the year. Yet even this exceedingly limited outlay was considerably in excess of the income received by this poorest third of the Nation. As the chart clearly shows, only $6 billion of the total expenditure was covered by current income; the remaining $1 billion was met from resources accumulated in previous years or by loans from relatives and friends, credit at retail stores or other forms of borrowing.

Not all of the families and individual consumers in this poorest group, to be sure, had deficits for the year; many managed to live within their current incomes, or even to make some savings. But for the group as a whole, consumption expenditures exceeded income by 17 percent. With gifts and personal taxes added, total outlay exceeded income by almost 20 percent. While the average income of the group was $471, average outlay amounted to $563, leaving an average deficit of $92.

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[16] For discussion of expenditures for recreation and reading by public and private agencies, see p. 66 below.

[17] See *Consumer Incomes in the United States*, table 2, p. 6, and table 3B, p. 95.

[18] The figures for seven income groups on which the following summary discussion is based are shown in Appendix tables 1A to 5A. The more detailed estimates presented in the report cover 15 levels of income, as well as each third, each quarter, and each tenth of the Nation's consumer units.

For the middle third of the Nation, current consumption expenditures were almost twice as great as those for the lower third, amounting to nearly $14 billion, or 28 percent of the national total. A large proportion of the families and individuals in this American "middle class" also showed deficits for the year, but the average consumption expenditure of $1,056 for the group as a whole came just within the average income of $1,076. This $20 leeway, however, was not quite sufficient to cover the average additional amount of $39 paid out for gifts and for certain personal taxes, so that for this group also savings were "negative" for the year, rather than positive. Thus for the poorer two-thirds of the Nation the incomes received during 1935–36 were too low, on the average, to cover current outlays.[19]

For the upper third of the Nation, current outlays were well within current incomes. As a group, these 13 million consumer units with incomes of $1,450 and over spent $29 billion for current consumption—58 percent of the total expenditure, and four times as much as was spent by the lower third. These consumption expenditures absorbed just three-fourths of their total income for the year, leaving nearly $10 billion for savings and for gifts and personal taxes.

When we consider the income groups within the upper third shown in chart 2, we find that the 6 million families and individuals with incomes between $1,450 and $2,000 used more than 90 percent of their incomes to meet current living expenses. This proportion drops sharply as we move to the upper end of the income scale; the 178 thousand consumer units with incomes of $15,000 and over devoted less than 40 percent of their incomes to consumption purposes.

This top one-half of 1 percent of the Nation, it may be noted, received nearly 10 percent of the $59 billion consumer income in 1935–36—almost as much as the whole lower third. Their expenditures for current consumption, however, accounted for only a little over 4 percent of the total expenditure of $50 billion, in comparison with the 14 percent share of the lower third.

Consumer Savings

The savings made by the families and individuals in this top income group were appreciably greater than their consumption expenditures, amounting to $2.8 billion—nearly one-half of their total income. If we add the savings of the other groups with incomes above $1,450, we find a total volume of savings of $7.4 billion—nearly one-fifth of the total income of this upper third of the Nation. Offsetting these positive savings, however, is the net deficit of $1.4 billion incurred by the poorer two-thirds of the Nation, leaving a net positive savings of $6 billion for all income levels combined.

Outlays for Gifts and Certain Personal Taxes

In addition to the outlays made by families and single individuals for their current living expenses and the amounts put aside as savings, some $3 billion of consumer income in 1935–36 was transferred to others in the form of gifts and certain direct personal taxes.

As chart 1 has already shown, a little over $2 billion of this outlay went for gifts to individuals outside the immediate family, to churches, and to philanthropic organizations of various types, while about $900 million represented personal income taxes, poll taxes, and minor personal property taxes. This total outlay of $3 billion for gifts and personal taxes was far more evenly divided among the seven income groups shown in chart 2 than were the $6 billion total savings in 1935–36.

The share of the lower third in such outlays was naturally small—less than 6 percent of the national total. But it is significant to note that although the incomes received by this group were insufficient, on the average, to cover current living expenses, nearly 3 percent of the total income, or $13 per consumer unit, was transferred to others as gifts and personal taxes. Contributions to the church and gifts to relatives and friends accounted for most of the $171 million outlay, with only a minor portion going for poll taxes and certain personal property taxes.

Outlays of the middle third of the Nation for gifts and personal taxes averaged more than three times as much as those of the lower third—or, as indicated above, $39 per consumer unit. Even so, such transfers absorbed only 4 percent of income, with gifts again composing the major part of the outlay.

Together, the families and individuals in the poorer two-thirds of the Nation accounted for less than a fourth (22 percent) of the total outlay for gifts and personal taxes in 1935–36. Somewhat more than a fourth—about a proportionate share—was contributed by the 26 percent of all consumer units with incomes between $1,450 and $3,000. Another fourth of the $3 billion aggregate came from the 6½ percent of consumer units with incomes between $3,000 and $15,000, and the remaining one-fourth from the top one-half of 1 percent of consumer units—those having incomes of $15,000 and over.

This top income group paid the bulk of the $900 million taxes included in these estimates. This is to be expected, inasmuch as the taxes included are predominately Federal and State personal income taxes. Yet even for this income group, the total amount transferred as gifts and personal taxes combined did not exceed 13 percent of income—only a third of the amount spent for current consumption and even a smaller fraction of the amount reserved as savings.

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[19] These findings, it should be noted, are not peculiar to the year 1935–36, but are in agreement with the evidence regarding net deficits at the lower income levels shown in previous studies of family expenditures, and with the summary of these earlier studies presented by the Brookings Institution in *America's Capacity to Consume*. For further discussion, see p. 20.

In considering these figures for the top one-half of 1 percent of the Nation, it should be remembered that they cover a very wide range of incomes, extending from $15,000 to the top of the income scale. Most of the families and individuals in the group had incomes of less than $50,000, and more than half received less than $25,000. The average figures for the group as a whole, therefore, are dominated by the outlays of those at the lower end of this income range, and do not reveal the proportion of income devoted to gifts and personal taxes by the small number of consumers in the very high income brackets.

It should also be kept in mind that the particular taxes included in the estimates presented here cover only a small part—considerably less than 10 percent—of the total taxes collected in 1935–36 as Federal, State, and local revenues.[20] The total tax burden of the Nation for that year, as shown by studies of tax statistics, was about $10.5 billion, while Federal and State personal income tax payments combined amounted to approximately $800 million, and the minor additional taxes covered by the present study to less than $200 million. These tax figures from independent sources, it should be noted, check closely with the total figure of nearly $900 million shown in the present report for the particular personal taxes covered. It is obvious that the distribution of this small portion of the total volume of tax payments affords no evidence whatever of either the

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[20] As indicated above, in footnote 2, many taxes borne by consumers have been merged, in the report, with the expenditures for goods and services to which they apply—sales taxes, gasoline taxes, excise taxes on amusements, tobacco and liquor, and taxes on automobiles and on owned homes. Business taxes and taxes paid on income-producing property were, of course, deducted as business expenses in calculating the net incomes of consumers. Inheritance taxes and estate and gift taxes, it should be noted, were not involved in the study, for inheritances and gifts were not counted as current income for the year (unless used for current living expenses) and taxes paid on them therefore do not appear in the figures showing the use of income. Corporation income taxes also were not involved in the estimates presented in this report

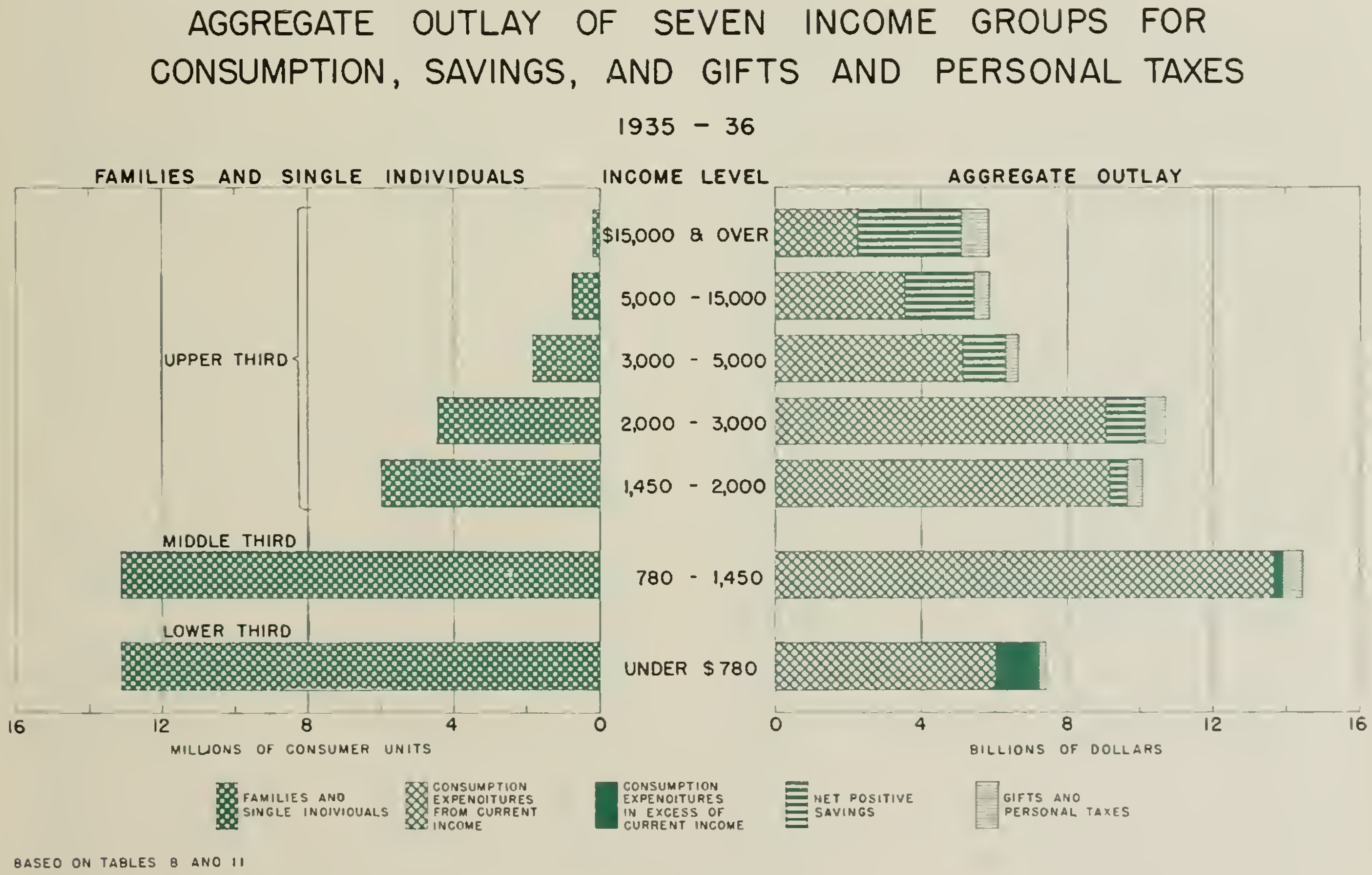

CHART 2

NOTE. Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

absolute or the relative tax burdens borne by the different income groups.[21]

Even when allowance is made for the limited scope of the present tax estimates, the outlays for gifts and taxes shown in the higher income levels may appear, on first impression, unduly small—especially in comparison with the tax rates imposed by the Federal income tax law. But a direct comparison cannot be made between the tax payments covered by these estimates and the taxes paid on personal incomes. In the first place, the net taxable incomes upon which income taxes are calculated omit substantial items of income that were included in net income as defined in the present study; in the second place, the tax outlays presented here are based on the average outlay for all families at each income level, including those who failed to file income tax returns or to report the full amount of their incomes, and those not subject to the income tax; and finally, taxes collected in 1935 and 1936 were levied on incomes received in 1934 and 1935, when incomes were generally lower.

When account is taken of these points of difference, the figures shown at the various income levels in the present study are found to be in very reasonable agreement with the tax payments of the different income classes shown in Federal income tax reports.

Before turning from the estimates of consumer outlays shown in chart 2, it is important to note that the payments made for income taxes and other personal taxes and for gifts had comparatively little effect in "leveling off" the distribution of purchasing power among different income groups. The top 178 thousand families and individuals, with incomes of $15,000 and over, paid out $750 million for such taxes and gifts and retained about $5 billion for their own current use and for savings. This purchasing power amounted to 9 percent of the combined consumption expenditures and savings of all consumers—only a little less than the 10 percent share of total consumer income received by this top group. The 13 million families and individuals in the poorest third of the Nation, who also received a 10 percent share of total income, paid out, of course, a much smaller amount for gifts and personal taxes. Nevertheless the $6 billion of income retained for their own current needs accounted for less than 11 percent of total consumer expenditures and savings. Examining the outlays of this poorest group in more detail, we find that it required the total income retained by most of them—by more than 11½ million families and individuals—to match the purchasing power retained by the 178 thousand at the top.

Average Expenditures for Consumer Goods and Services

Up to this point our summary of the findings of the study has been concerned with the division among various income groups of the total disbursements of the Nation. Let us now consider the average expenditures of consumers at different income levels.

We have already seen that as we go up the income scale the proportion of income used for current living expenses gets smaller and smaller, making room for greatly increased savings and for some increase in gifts and personal taxes. Despite this decline in the relative importance of consumption expenditures, the actual dollar outlays increased rapidly with each advance in income. While the lower third of the Nation spent $550, on the average, for current consumption needs, those with incomes between $3,000 and $5,000 spent $2,800—more than five times as much. And those receiving $15,000 and over spent $12,500 on the average—more than 20 times as much as the lower third.

These figures suggest that there is no discernible limit to the potential expansion of consumer demands. As far as can be determined from the present evidence, American consumers will continue indefinitely to increase their total outlays on consumer goods and services as additional increments of purchasing power become available to them.

When we consider the average amounts spent on broad classes of goods and services, we again find no evidence of the satiation of consumer wants. For every one of the fourteen categories of consumption shown in chart 1 the average expenditure increases steadily as income rises.

Expenditures for food show the slowest rate of increase, and yet even for this category the average disbursements of the $15,000 and over income group are almost nine times as large as those of the group with incomes under $780. For this poorest third of the Nation, dollar outlays for food averaged $236 for the year—just half of the average income. The richest one-half of 1 percent, at the other extreme, spent over $2,000, on the average. It should be noted, however, that this high expenditure absorbed only 6 percent of the average income of this top group of consumer units.

In general, while dollar expenditures for food increase steadily as income rises, they lag far behind increases in income, and hence claim progressively smaller shares of total income.

Average expenditures for clothing and for shelter also fail to keep pace with advancing income, but they expand at a more rapid rate than do expenditures for food. The lower third of the Nation spent an average of $47 for clothing and $178 for shelter (housing, household operation, and furnishings) in 1935–36, while families and individuals in the top income group of $15,000 and over spent about $1,800 and $4,400, respectively.

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[21] For discussion of these points and comparison of the tax estimates presented here with tax figures from "outside" sources, see pages 57–58. The figure of approximately $800 million quoted for Federal and State personal income tax payments is the larger of the two estimates discussed on p. 58. The smaller estimate of $666 million is probably more comparable with the tax payments included in the present study.

Food, clothing, and shelter together claimed the major share of consumption expenditures at all income levels. Over four-fifths of the current consumption expenditure of the lower third was for these essential needs, and over three-fifths of the expenditure of the top income group. In terms of the proportion of income devoted to these categories, however, the two groups are in striking contrast. Almost all of the income of the lower third—98 percent of the $6.2 billion received—was spent for these three basic consumer wants, as compared with only 25 percent of the $5.8 billion received by the top one-half of 1 percent of the Nation.

Among the other major categories of consumption, automobile, recreation, and education expenditures mount most rapidly as income rises, both in actual dollars and in proportions of total current consumption. Automobile expenditures plus other transportation costs range from $27 per consumer unit in the lower third of the Nation to nearly $1,900 for the group with

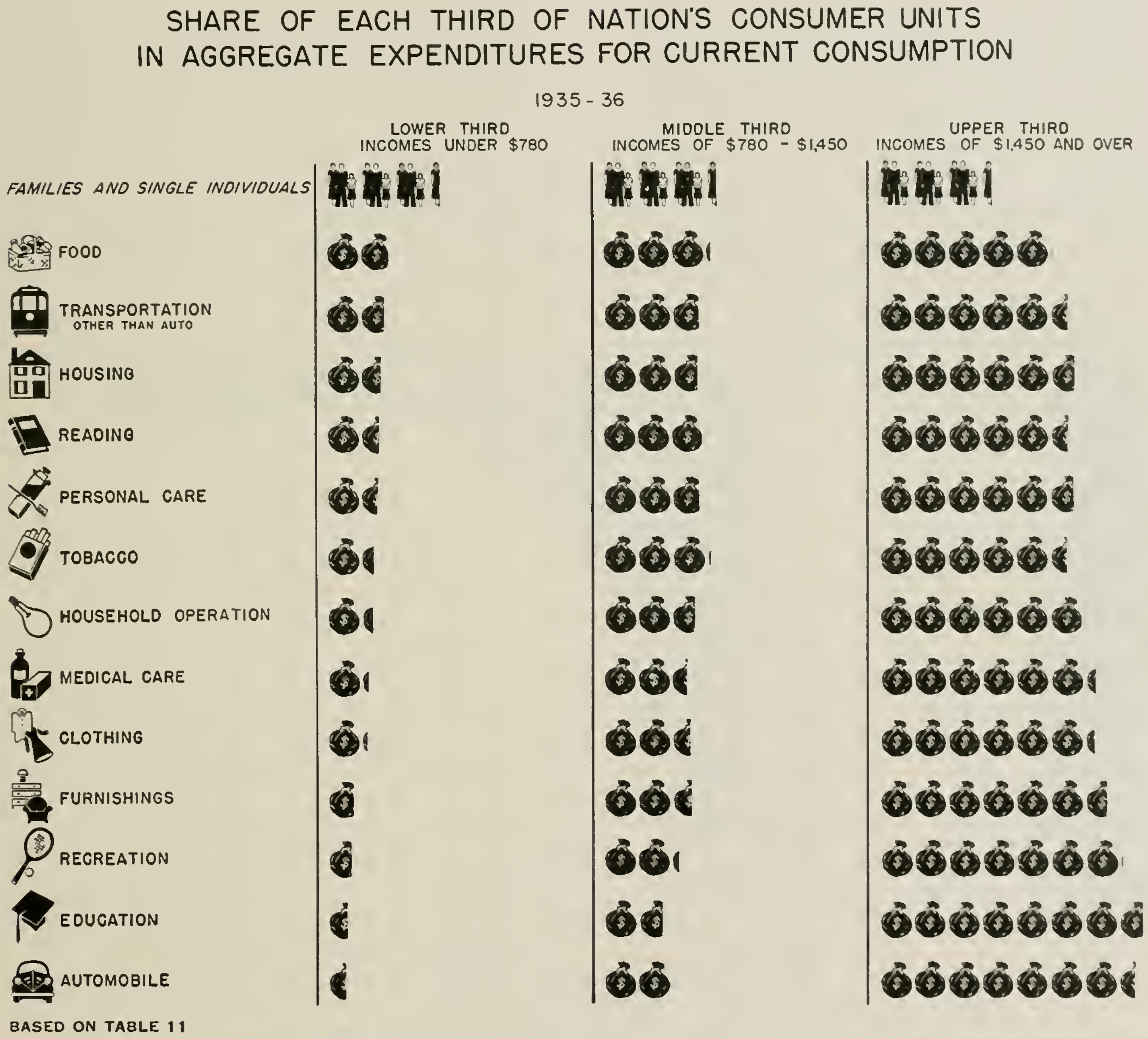


Chart 3

Each figure symbol represents 10 percent of all families and single individuals.
Each bag symbol represents 10 percent of total expenditure on specified category of consumption.

incomes of $15,000 and over, recreation expenses from $9 to nearly $800, and education expenses from $2 to more than $400.

Average medical expenses range from $20 to over $700 for the same income groups, and personal care expenditures from $12 to about $200. Tobacco, reading, and other items likewise expand as income advances, but none of these categories of expense accounts for more than 1 or 2 percent of income or of total consumption expenditure at any income level.

The Consumer Market at Three Levels of Income

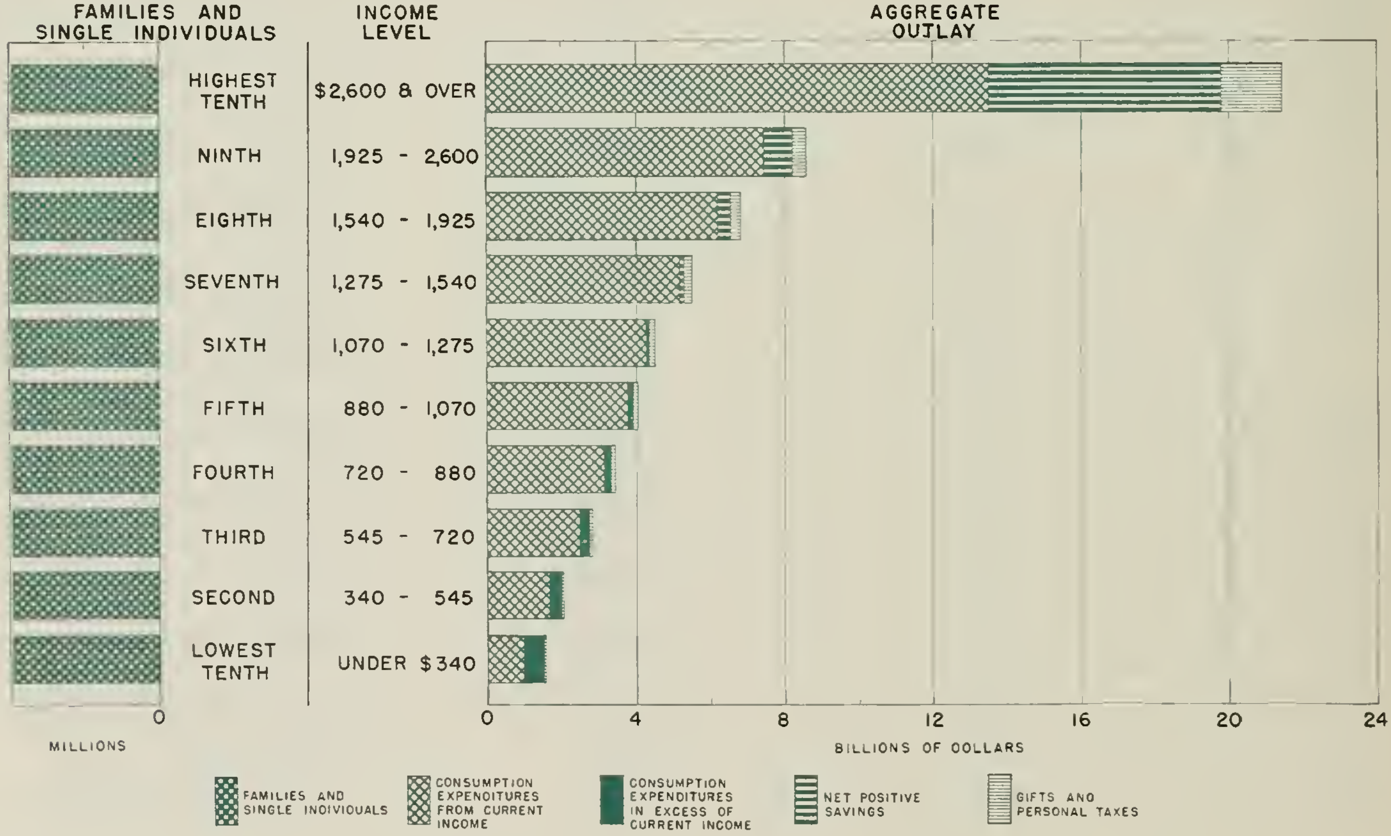
The effects of the wide disparity in purchasing power upon the American consumer market are revealed clearly in chart 3, which shows the aggregate expenditures of the lower, middle, and upper thirds of the Nation for each category of current consumption.

In not one of the consumption categories does the lower third share proportionately in the total expenditures of the Nation. These 13 million families and single individuals accounted for only 18 percent of the total food expenditures in 1935–36. They shared even less adequately in other essential categories of consumption, making only 16 percent of the total outlays for housing and 12 percent of those for clothing. Their expenses for personal care aggregated 15 percent of the national total, and their medical care expense, 12 percent. In recreation, education, and automobile expense, the share of the lower third dwindled to 7 percent, 6 percent, and 5 percent, respectively.

Families and individuals in the middle third fared somewhat more equitably in the division of the consumer market in 1935–36, but even they failed to attain a full one-third share in any major class of consumption items. As chart 3 indicates, they shared most liberally in total food consumption—with 32 percent of the national aggregate—and most sparingly in education, automobile, and recreation expenditures. Their com-

AGGREGATE OUTLAY OF EACH TENTH OF NATION'S CONSUMER UNITS FOR CONSUMPTION, SAVINGS, AND GIFTS AND PERSONAL TAXES

1935 - 36



BASED ON TABLE 10

CHART 4

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

bined outlays for these categories of consumption represented only 17 percent, 20 percent, and 22 percent, respectively, of the national aggregates.

It is obvious, from chart 3, that the upper third of consumer units dominates the consumer market, and claimed a majority share in every category of current consumption in 1935–36. They accounted for half of the total food consumption of the Nation, considerably more than half of shelter, clothing, medical care, and personal care expenses, and from 71 to 77 percent of recreation, automobile, and education expenditures.

The Share of Each Tenth of the Nation

For a more detailed picture of the way different income classes share in national consumption, it is convenient to divide the 39 million consumer units in the Nation into 10 equal groups according to their income status in 1935–36. The aggregate consumer income received by each of these tenths, or deciles, was shown in the preceding report.[22] Chart 4 reveals the aggregate outlay of each tenth and the division of that outlay among consumption expenditures, savings, and gifts and personal taxes.

The most striking fact appearing from the chart is the excess of expenditures over current income which prevails for each tenth up to, and including, the sixth. The seventh, eighth, and ninth deciles show net positive savings of increasing magnitude, but these are by no means sufficient to offset the deficits, or net negative savings of the poorest six-tenths of consumer units, with incomes below $1,275. The net positive savings of the top tenth of consumer units total $6.3 billion, a sum larger than the net positive savings of the Nation as a whole. This highest tenth of consumer units, with incomes of $2,600 and over, also accounted for more than half of the outlays for gifts and personal taxes.

Even with their purchasing power augmented by past savings and by borrowing, the outlays of the lower six-tenths of the Nation for all current consumption goods and services are remarkably small. The poorest tenth, including nearly 4 million families and individuals with incomes under $340, spent only $1.5 billion for current living expenses—an average of less than $400. The entire lower half of the Nation, with incomes under $1,070, spent only $13.5 billion—just 27 percent of the total consumption outlay of $50 billion.

The evidence presented by these figures emphasizes again that there is ample room for a very substantial expansion of the national consumer market. It indicates also the urgent need for improvement in the purchasing power and standards of living of more than half of the Nation's consumers.

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[22] See *Consumer Incomes in the United States*, chart 3 and table 1B.

PART I

AVERAGE PATTERNS OF CONSUMER SPENDING

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SECTION 1. HOW FAMILIES SPEND THEIR INCOMES

Any picture of the consumption of the American people is in large measure a picture of family consumption, for the great majority of the Nation's consumers are members of families of two or more persons sharing a common income and living under a common roof. In 1935–36 there were 29,400,300 such "economic" families in the United States. They contained 91 percent of the total population and received 80 percent of the total consumer income. On the average, they included 3.9 persons per family.[1]

Most of the consumption needs of these 116 million family members were supplied through the joint expenditures of the family unit. Such items as clothing, medical care, car fares, and movies were, of course, purchased on an individual basis, but the bulk of the family income was disbursed for food, shelter, and other commodities and services shared by all members of the family.

The patterns of family spending are therefore of first importance in building up a national estimate of consumption expenditures. How does the "average" American family dispose of its income? How much is expended for food, for housing, for automobiles, for other items of family living? How much is saved? How do these expenditures and savings vary for families at different income levels? Before we try to answer such questions, let us consider briefly how the average spending patterns of families were prepared.[2]

The Basis of the Family Patterns

In the way it spends its income, every American family appears, on first impression, to be a law unto itself. Yet careful examination of the expenditures of any large number of consumers reveals definite similarities in the patterns of spending that families in similar economic and social groups tend to follow.

The most important factor influencing the pattern of consumption is, of course, the amount of income available. Much of the seemingly infinite variety in spending habits disappears when we consider families in the same income group. And much of the diversity in expenditures within a given income group can, in turn, be traced to a relatively short list of other variable factors, such as size of family, occupation, color group, geographic location, and the type of community in which the family lives.

It is possible, therefore, to classify the Nation's 29 million families into a reasonably small number of population groups, in such a way that the families within each group are fairly similar with respect to the way they spend a given income. An average pattern of spending for each "qualitative" group can then be constructed which will typify the spending habits at different income levels of all of the families in the group.[3]

These characteristic "sample" patterns for different groups of the population can then be combined by weighting each pattern at each income level in accordance with the total number of families belonging to the group and falling within the income level. In this way it is possible to obtain the average spending patterns of the major groups of American families, and the over-all pattern for all families in the Nation.

This, in broad outline, is the procedure which has been followed in constructing the average patterns of family spending in the present study.

The Sources of Data Used

For preparing these family estimates two main types of data were required: first, sample data on the expenditures and savings of different homogeneous groups of families; and, second, data on the total number of families belonging to each group and their distribution by income level.

The necessary information of the second type was obtained in the preceding study of the distribution of consumer incomes in 1935–36. For the sample data on family expenditures and savings it was possible, as indicated above, to turn to the Study of Consumer Purchases.[4]

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[1] See *Consumer Incomes in the United States*, tables 1 and 4.

[2] For a more detailed description of the data and methods used in building up the family estimates, see Appendix B, pp. 121–141.

[3] It is true that considerable variation is found in the way families within each "qualitative" group spend their incomes. If, however, the *average* expenditures of a number of families belonging to a given group are compared with the *average* expenditures of another sample of families, identical as regards the variable factors listed above, the patterns of spending are found to be remarkably similar.

This study had already served as the major basis for the estimates of family income distribution, through information secured from a random sample of nearly 300,000 families living in urban and rural communities in 30 different States.[5] The information on family expenditures and savings was obtained from part of this random sample in each community studied. These consumption data constitute by far the largest and most representative body of data ever collected on the use of income by American families. Approximately 60,000 families living in 51 cities, 140 villages, and 66 farm counties were covered by the consumption schedules. Data from 42,000 of these families were utilized in preparing the estimates of family spending and saving presented in this report, and an additional 8,500 schedules were used in deriving the estimates for direct personal taxes and for various types of gifts.[6]

The sample of families covered by the consumption data was a "controlled" sample, selected so as to represent various homogeneous "qualitative" groups of families. It included only certain types of families represented in the larger, random sample. The "controls" were adopted in order to facilitate clear-cut comparisons of the spending patterns of the major groups of the Nation's families, by excluding the numerically less important groups who would otherwise have blurred the picture.[7]

With this purpose in mind, the consumption sample was confined to families containing both husband and wife, who were both native born and who had been married for at least a year. Only white families were included, except that in all southern communities and in two large northern cities Negro families also were covered. No families were selected who had received relief in any form at any time during the year, or who had kept house for less than 9 months of the year.[8]

The information obtained from each family covered a continuous 12 months within the years 1935 and 1936. The data were secured by field agents, through personal interviews with the housewife and other members of the family. The schedule for each family accounted for the full use of the family's income during the year. More than 200 separate items of consumption were listed, including all types of money expenditures and the estimated value of the occupancy of owned homes, of home-produced food and of certain other goods and services consumed without direct money expense.[9] The amount of income paid out as gifts and contributions and for certain types of personal taxes was also recorded.[10] In addition, detailed information was obtained on changes in family assets and liabilities during the year, as a basis for estimating the amount of income saved.[11]

All families interviewed in the consumption sample had previously supplied information concerning their incomes for the same 12-month period, so that it was possible to compare the total income of each family with its total expenditures plus savings, and thus test the accuracy and completeness of the schedule data. If the discrepancy between the two amounts exceeded 5.49 percent of the larger figure for city or village families or 10.49 percent for farm families, the consumption schedule was rejected.[12]

Constructing the Sample Patterns

The expenditure data from the Study of Consumer Purchases were supplied by the Bureau of Home Economics and the Bureau of Labor Statistics classified according to six major factors that were assumed to be closely associated with differences in family consumption patterns. These factors were income, family composition, occupational group, type of community, region, and color group.

This classification provided a very detailed breakdown of the basic data. Thus, for each city or regional group of cities covered in the study and for five regional groups of villages the schedules were tabulated within each income level by three to seven types of family composition and by three to six occupational groups, with separate figures for white and Negro families in certain communities. For the farm sample utilized, the data were tabulated for ten separate groups of counties, with a similar break-down by family composition and with separate figures in the southern farm counties for white and Negro sharecroppers and white and Negro farm operators.

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[4] See p. 3. For a more detailed description of the data from this study, see Appendix B, pp. 102–108.

[5] See *Consumer Incomes in the United States*, pp. 14–18 and 45–52.

[6] For location of sample communities covered in the Study of Consumer Purchases, see map on p. 103. For list of communities used in this report, and for those omitted, see Appendix B, pp. 104–105. The omission of schedules from certain communities was made because of limitations in time available for preparing the estimates and because their inclusion would not have added materially to the reliability of the estimates. For discussion of tests made to determine the effect on the estimates of the omission of schedules from certain sample communities, see Appendix B, pp. 127–130.

[7] The sample was also controlled with respect to the number of cases obtained from each group of families at each income level. This control was adopted in the interest of economy, in order to provide enough cases from the less usual groups and the less usual income levels to yield reliable averages, without obtaining a needlessly large number of cases from the modal groups and modal income levels. For further discussion of the advantages of a controlled sample, see Kneeland, Hildegarde; Schoenberg, Erika H.; and Friedman, Milton; "Plans for a Study of the Consumption of Goods and Services by American Families." *Journal of the American Statistical Association*, vol. 31, March 1936, p. 137. See also mimeographed report of the Social Science Research Council, *Consumption According to Incomes: A Suggested Plan for an Inquiry into the Economic and Social Well-Being of the American People*, September 1929, pp. 16–17.

[8] The original plans for the study called for the inclusion of foreign-born families and of relief families in selected sample communities, but limitations of time made it necessary to revise the plans to exclude these groups. For further explanation of the sampling procedures used in the study and of the controls established for the consumption sample, see Appendix B, pp. 104–107.

[9] From more than half of the families covered by the consumption schedule, additional information was obtained in great detail on expenditures for different articles of food, clothing, and furnishings. This information has been utilized in preparing the average spending patterns of different groups of families which will be presented in a later report.

[10] Only Federal and State personal income taxes, poll taxes, and certain personal property taxes were separately reported in the Study of Consumer Purchases. Various other taxes levied upon consumers were merged with the expenditures for current consumption. Taxes levied on business operations and on income-producing property were deducted as business expenses in calculating net income. See p. 27 below and Appendix B, p. 98.

[11] For facsimiles of schedules, see Appendix B, pp. 109–120.

[12] The procedure used in making this calculation is more exactly described as follows: decreases in assets or increases in liabilities were added to money income to give total money receipts, and this figure was compared with the total disbursements figure obtained by adding increases in assets or decreases in liabilities, total money expenditures for current consumption, and outlays for gifts and personal taxes. The discrepancy was then computed as a percentage of the larger of these two figures. For definition of family savings, see p. 22 below and Appendix B, p. 98.

The first problem in utilizing the data, therefore, was to decide how to combine these fine subdivisions of the sample into broader groups of families for which average consumption patterns should be prepared. In selecting the particular combinations to be made, it was necessary to reconcile two conflicting considerations: first, the necessity for keeping the groups of families sufficiently small and homogeneous to insure proper weighting in the national estimates of all the major variables affecting family consumption; second, the necessity for limiting the number of groups so that the statistical job involved in building up the estimates would not be prohibitive in magnitude.

Statistical tests of the significance of the various factors influencing consumption habits, plus considerations of time and of the usefulness of the separate consumption patterns, led to the decision to limit the number of patterns at any given level to three family sizes within each of four types of community (farm, village, middle-sized city, and large city) in each of five geographic regions, with additional farm patterns in three regions and with metropolis patterns in the North Central region. Separate patterns for white and Negro families of each family size were included for all southern communities and for North Central large cities and metropolises, and separate patterns for sharecroppers and operators of each color group in southern farm areas.

This involved a total of 99 groups of families for which separate consumption patterns, by income level, were to be prepared.[13] To obtain these patterns, the data for the finer break-down of the sample were combined, in some instances by pooling and in other instances by weighting the figures according to the relative numerical importance of the different groups of families represented in the random income sample.[14]

Separate patterns were not retained, it should be noted, for any occupational groups other than farm families. Statistical tests of the data had revealed that occupation, in itself, had surprisingly little influence on the nonfarm family consumption patterns, except for minor differences between the patterns for wage earners and other groups. Accordingly, data for all of the nonfarm occupational groups other than wage earners (that is, for the clerical group, salaried business and professional groups, and independent business and professional groups) were combined by pooling. The average pattern for these groups was then combined with the wage-earner pattern by weighting in accordance with the relative proportions of wage-earning families and other occupational groups in the population, as shown by the random sample.[15]

The spending patterns for these 99 groups of families were calculated directly from the actual expenditure data reported at the various income levels by the families interviewed in the Study of Consumer Purchases. The "raw" averages for the different items of expenditure were not smoothed or adjusted in any way. However, it was necessary in many instances to extrapolate the sample data for particular groups to obtain average patterns for very high or very low income levels for which no expenditure schedules were available. Similarly, it was necessary in some communities to use extrapolation methods in obtaining expenditure patterns for some family types.[16] It should be noted that the average expenditure figures for any group were based on all families in the group, even though some families may have reported no expense for some of the categories of disbursement.

Extending the Sample Patterns to All Families

Having obtained patterns of consumption at different income levels for each of 99 groups of families, the next step was to weight the sample patterns in accordance with the number of families in the population belonging to each group, and thus to obtain weighted patterns for the major broad groups of families, and for all families in the United States.

The necessary division of the 29 million families in the population into homogeneous groups corresponding to the 99 sample patterns, and the distribution of each group by income level, had already been largely accomplished in the preceding report on income distribution, as mentioned above. Since sample patterns were not available for all of the family groups identified in the income report—notably for relief families, foreign-born families, and native-white broken families—it was necessary to assign such families to the consumption group which they most nearly resembled.

In the absence of sample expenditure data for relief families, it was necessary to assume that their average spending patterns resemble very closely the spending patterns of nonrelief families in the same income class. The reasonableness of this assumption is borne out by the only expenditure data available for any kind of relief sample—data collected in 1934–35 from approximately 600 relief families in Cambridge and several other Massachusetts towns.[17] The fragmentary evidence from this source indicates that relief families, like nonrelief families in the low income levels, spend considerably more than they receive in current income.[18] The expenditures of the relief group in Cambridge, Mass., were found to have consistently exceeded their incomes, on the average, by 15 to 20 percent. These net deficits were largely explained by unpaid bills owed to the landlord, doctor, and grocer.

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[13] For list of these groups, see Appendix B, pp. 125–126.

[14] For further explanation, see Appendix B, pp. 121–125.

[15] In the case of villages, data for all occupational groups were pooled, since the method of collecting the data resulted in a representation of the various occupational groups in virtually the same proportions that occurred in the random sample.

[16] For explanation of extrapolation methods used, see Appendix B, pp. 132–141.

In considering these findings, it should be realized that the relief families covered in both the Massachusetts studies and the present estimates were not families entirely dependent on relief funds. In the present report, the relief group is defined to include all families that had received any form of relief, however little, at any time during the year. Many such families were dependent on relief for part of the year only, and then may have been only partially dependent. It is, of course, doubtful whether that part of the group whose only source of income during the entire year was from relief were in a position to incur substantial deficits. But it is not surprising to find that patterns of spending for the entire group, including those partially dependent, differ little from those of nonrelief families.[19]

The limitations of the sample data also made it necessary to accept the spending patterns of native-white families containing both husband and wife as reasonably applicable to all other families in the same income, family size, type of community, and regional grouping. The only exception to this procedure was for families in the South and in large cities in the North Central region, where separate expenditure patterns were prepared for Negro and for white families.

The assumption that the country of birth of husband or wife has relatively little effect on the family consumption pattern may not be entirely valid for all foreign-born groups. However, preliminary results from a study of the expenditures reported by foreign and native-born white families being made by the Bureau of Labor Statistics suggest that the differences in the division of a given income among the major categories of outlay are relatively minor. Further research is undoubtedly needed in this field.[20]

Sample expenditure data collected in small cities in the Study of Consumer Purchases were not utilized in the present report because of limitations in the time available for preparing the estimates and because it was believed that the inclusion of the additional data would not add materially to the accuracy of the national estimates. In deriving the all-family pattern of spending, the assumption was made that families living in small cities (of 2,500 to 25,000 population) followed the same average patterns of spending as families in the same qualitative group and income class living in middle-sized cities (of 25,000 to 100,000 population). Tests made to determine the effect of the omission of the sample data for small cities indicate that the all-family pattern of spending and the estimates of aggregate family disbursements would have been but slightly altered if the additional data had been included.[21]

Having determined from the income distributions in the previous study the total number of families in each of the 99 groups at the various income levels, it was a simple matter to weight the sample patterns at each income level and obtain average patterns applicable to all families in a given region or type of community, and an over-all average pattern for all families in the United States. Weighted patterns for various major groups of families will be presented and discussed in a later report on family expenditures. The national pattern of family spending at different income levels is analyzed in the present report.

Applicability of 1935–36 Patterns to Other Years

The average pattern for all families reflects the composite effects of five variables in addition to income—region, type of community, color, occupation, and family size. Since it is weighted in accordance with the relative importance of the different groups at the various income levels in 1935–36, the national pattern is essentially applicable to that particular year, and might reasonably be thought of as based on the sum of the expenditures of all families at a given income level, divided by the total number of such families.

Significant shifts in the proportions of families in the various groups from one year to another—shifts, for example, between farm and city, or between the South and the North—would obviously alter the over-all spending pattern. Much of the effect of such distribution shifts on the national pattern could be cared for, however, by reweighting the patterns for the major component groups of families. These patterns, although based on 1935–36 conditions, may therefore prove valid for several years to come, provided that habits of spending change but little and that distinct shifts in the relative prices of different consumer goods and services do not occur.

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[17] For discussion of these data, see Gilboy, Elizabeth W., "The Expenditure of the Unemployed," *American Sociological Review*, Vol. III, No. 6, Dec. 1938, pp. 801–814. Dr. Gilboy states that in an exhaustive search, with the assistance of the Works Progress Administration, she was unable to find any complete budgetary studies for relief cases, other than those discussed in her article.

[18] For comparison of these estimates with those of the negative savings of low income nonrelief families, see Appendix B, p. 131

[19] For further discussion of the estimated expenditures of relief families, see Appendix B, pp. 130–132.

[20] For discussion, see Appendix B, p. 127.

[21] For a description of the tests and a summary of the results, see Appendix B, pp. 127–129. Similar tests made to determine the effect of the omission of sample data for native-white families in New York City are described in Appendix B, pp. 129–130.

Saving Versus Spending

Turning now to the results of these national estimates of consumption, let us examine the average pattern of family spending. Perhaps the most important results of the study are those showing how families divide their incomes between their current living expenses, their savings for the future, and their outlays for gifts and certain personal taxes. This aspect of the family spending pattern is summarized in table 1. Here the 29 million American families are classified into 15 income groups according to the size of their incomes in 1935–36. The average income for each group is also shown, and the proportion of this income devoted to each of the three main classes of outlay. Similar findings are presented, for broader income levels, in charts 5 and 6.

Negative Savings at Low Incomes

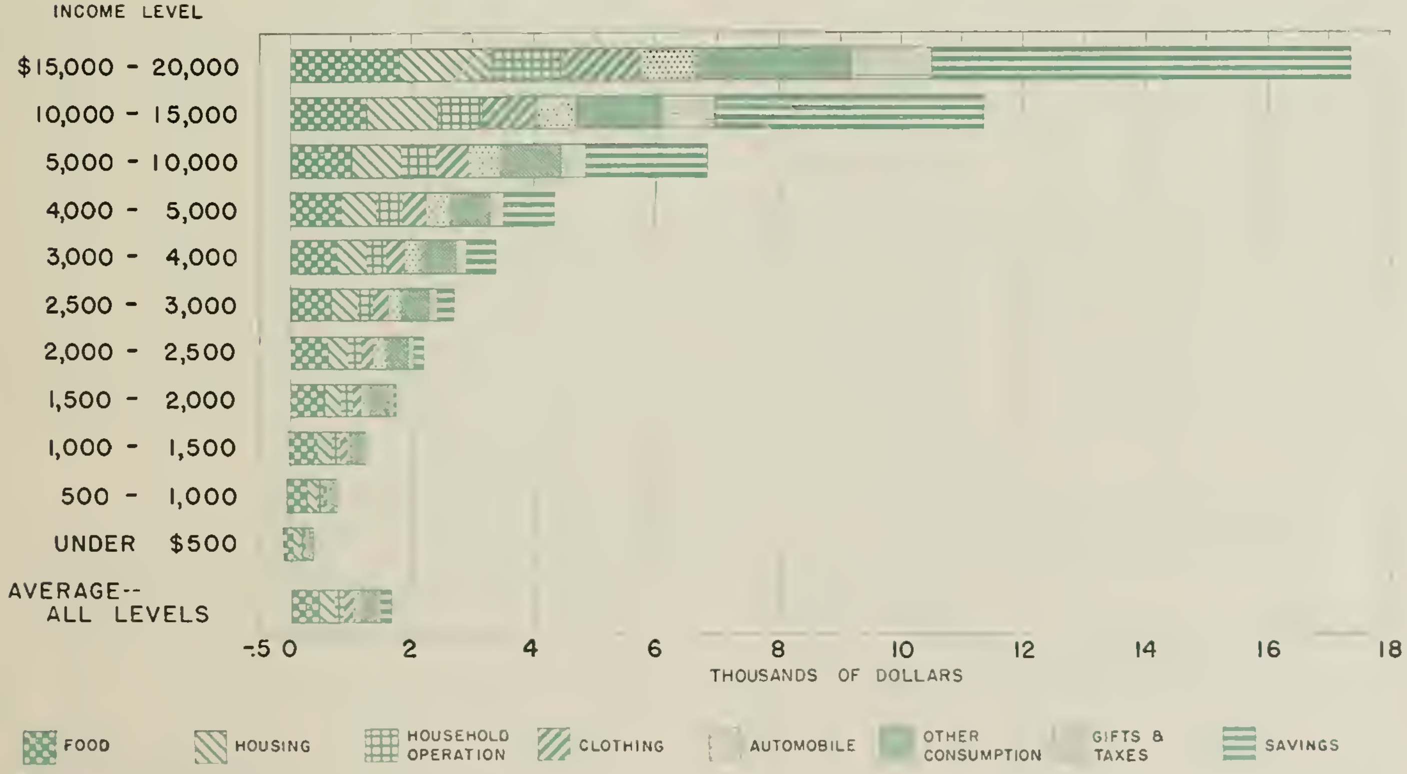
The most striking figures in this summary picture of family spending are the negative savings, or net deficits, shown at the low income levels. For all of the income groups below $1,250, the entire family income was not sufficient, on the average, to meet current outlays for food, housing, and other necessities and comforts of daily living. For families with incomes of less than $500, average outlay exceeded average income by $162, or—as chart 6 clearly shows—by about 50 percent. While the deficit is less as income increases, even those families with incomes of $1,000 to $1,250 spent, on the average, about 3 percent more than their incomes for the year.

The significance of these figures becomes evident when it is realized that more than half of the Nation's families had incomes of less than $1,250 in 1935–36. Not all of these 16,000,000 families, of course, spent more than they received during the year; some—in fact, a considerable number—managed to live within their incomes or even to put aside some savings. But these families were not sufficiently numerous, or their

USE OF INCOME BY AMERICAN FAMILIES

AT DIFFERENT INCOME LEVELS

1935-36



BASED ON TABLES 1 AND 2

CHART 5

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

TABLE 1.—*Average outlay of American families for consumption, gifts and personal taxes, and savings,*[1] *by income level, 1935–36*

Income level	Families		Average income per family	Average outlay per family for—			Percentage of income for—		
	Number	Percent		Current consumption	Gifts and personal taxes[2]	Savings	Current consumption	Gifts and personal taxes[2]	Savings
Under $500	4,178,284	14.2	$312	$466	$8	−$162	149.3	2.6	−51.9
$500–$750	3,799,215	12.9	627	707	12	−92	112.7	1.9	−14.6
$750–$1,000	4,277,048	14.6	874	914	18	−58	104.6	2.0	−6.6
$1,000–$1,250	3,882,444	13.2	1,120	1,127	24	−31	100.6	2.2	−2.8
$1,250–$1,500	2,865,472	9.8	1,364	1,316	34	14	96.5	2.5	1.0
$1,500–$1,750	2,343,358	8.0	1,612	1,512	44	56	93.8	2.7	3.5
$1,750–$2,000	1,897,037	6.4	1,829	1,684	53	92	92.1	2.9	5.0
$2,000–$2,500	2,464,860	8.4	2,221	1,968	71	182	88.6	3.2	8.2
$2,500–$3,000	1,314,199	4.5	2,715	2,302	98	315	84.8	3.6	11.6
$3,000–$4,000	1,181,987	4.0	3,394	2,729	136	529	80.4	4.0	15.6
$4,000–$5,000	402,595	1.4	4,391	3,276	211	904	74.6	4.8	20.6
$5,000–$10,000	510,010	1.7	6,874	4,454	392	2,028	64.8	5.7	29.5
$10,000–$15,000	131,821	.4	11,353	6,097	840	4,416	53.7	7.4	38.9
$15,000–$20,000	58,487	.2	17,331	9,134	1,282	6,915	52.7	7.4	39.9
$20,000 and over	93,483	.3	41,871	14,822	5,820	21,229	35.4	13.9	50.7
All levels	29,400,300	100.0	1,622	1,389	69	164	85.6	4.3	10.1

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

savings sufficiently large, to bring the average expenditures of the group as a whole within the limits of their average income.[22]

Striking as these findings are, they are not entirely unexpected, nor can they be interpreted as peculiar to the year 1935–36. They are in general agreement with the evidence shown in previous studies of family expenditures and with the summary of these earlier studies prepared by Warburton for the Brookings Institution as a basis for its estimates of consumer spending and saving in 1929.[23] In the Brookings estimates, negative savings are shown for income levels up to $1,000 and zero savings for the next income group, up to $1,250. While these figures give a slightly more favorable picture of family financing than those presented here—especially when the higher costs of living in 1929 are taken into account—the general conclusions of the two studies with respect to family savings at low income levels are the same.

Here clearly is an aspect of the American economy deserving careful attention. How many of the Nation's families in these low income groups show a deficit at the end of the year? How many are able to meet this deficit by drawing upon family resources accumulated in previous years? How many depend on loans from relatives and friends, upon credit at the retail store, upon accumulating arrears in rent, upon other forms of borrowing? What proportion of these borrowed funds represents installment purchases of durable goods bought in anticipation of continued or increased income in the following year? What proportion of the total borrowings is repaid in subsequent years, and how much must be written off the national ledger as unrecorded relief? To what extent do these negative savings reflect the deficits of families who have recently shifted to a lower income level, and may shift again to a higher income level in a following year? How far are they due to the temporary inability of normally low income families to adjust current expenditures to current income, and how far to a continued inability of such families to "make ends meet"?

Important as these questions are, almost no information is available at the present time to indicate answers. Fortunately, further analysis of the data from the Study of Consumer Purchases will throw some light on the problem. These results, however, can indicate the situation only for the single year 1935–36. For an understanding of how these wide-spread family deficits occur and are met from year to year, further investigation is called for.

Savings at High Incomes

When we turn to the pattern of family spending at the higher income levels, we find a fairly rapid increase in the amount set aside for savings as income advances. Starting with a bare 1 percent for incomes of $1,250 to $1,500, the proportion saved increases to 21 percent for incomes of $4,000 to $5,000, to 30 percent within the $5,000 to $10,000 level, to 40 percent between $15,000 and $20,000, and to more than 50 percent, on the average, for incomes of $20,000 and over. The proportion of income devoted to current consumption shows, of course, a corresponding decrease. But, it should be noted, it is not until the income level of $20,000 and over is reached that expenditures for family living take less than half of the income for the year—that more income is saved than is spent on current needs.

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[22] For example, data from the Study of Consumer Purchases for native-white, nonrelief families in Chicago with incomes of $500 to $750 show 22 percent with surpluses for the year, 70 percent with deficits, and 8 percent with no change in assets and liabilities. The average net deficit for the income level was $204. For families with incomes of $1,000 to $1,250, the corresponding figures were 52 percent with surpluses, 43 percent with deficits, and 5 percent with no change, and an average net deficit of $62. See U. S. Department of Labor, Bureau of Labor Statistics, Press release for July 10, 1938, *How Urban Families Spend Their Incomes*, tables 3a and 3b. Similar figures are available for other communities covered in the study.

[23] *America's Capacity to Consume*, Appendix B, tables 5, 6, and 7, pp. 260–262. For further comparisons with savings estimates of this study, see pp. 69–70.

In considering the figures shown in table 1, it must be borne in mind that the average savings figure for incomes of $20,000 and over is a very tentative estimate.[24] As indicated elsewhere,[25] the basic data available for determining the spending patterns of families with incomes beyond $20,000 were exceedingly limited, and it was necessary to rely primarily on "extrapolating" the curves of expenditures and savings shown by the more adequate sample data for the lower income levels.

Fortunately, it was possible to test the reasonableness of the savings figure obtained with this method by deriving a minimum and a maximum estimate of savings for families in this top income group. The results of this test are presented in a later section of the report, in connection with the discussion of the total savings of American consumers. It should be noted at this point, however, that these results suggest that the average figure of 51 percent shown in table 1 may be several points above or, in the opposite direction, a number of points below, the true percentage of savings for the income level of $20,000 and over.

It must also be kept in mind that the figures for incomes of $20,000 and over cover a very wide range of incomes, extending to the very top of the income ladder. While the average income for the group as a whole was about $42,000 in 1935–36, more than three-fourths of the families in the group received less than this amount, and more than half received less than $30,000.[26] The percentage of savings for the majority of the group was, therefore, somewhat less than the average of 51 percent shown in the table, while the percentage for the smaller number of families with high incomes was, in general, distinctly higher.

This average pattern of spending and saving at the $20,000 and over level is thus strongly affected by the

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[24] It must be remembered also that the average savings at a given income level in any one year may be influenced by the point occupied by that year in the business cycle. Thus, it is possible that higher income families saved more than usual in 1935–36 in order to repay loans and make up for deficits incurred in previous depression years. However, see comparisons with estimates of Brookings Institution for 1929, pp. 69–70.

[25] See Appendix B, p. 136.

[26] See preceding report, *Consumer Incomes in the United States*, table 3, p. 18.

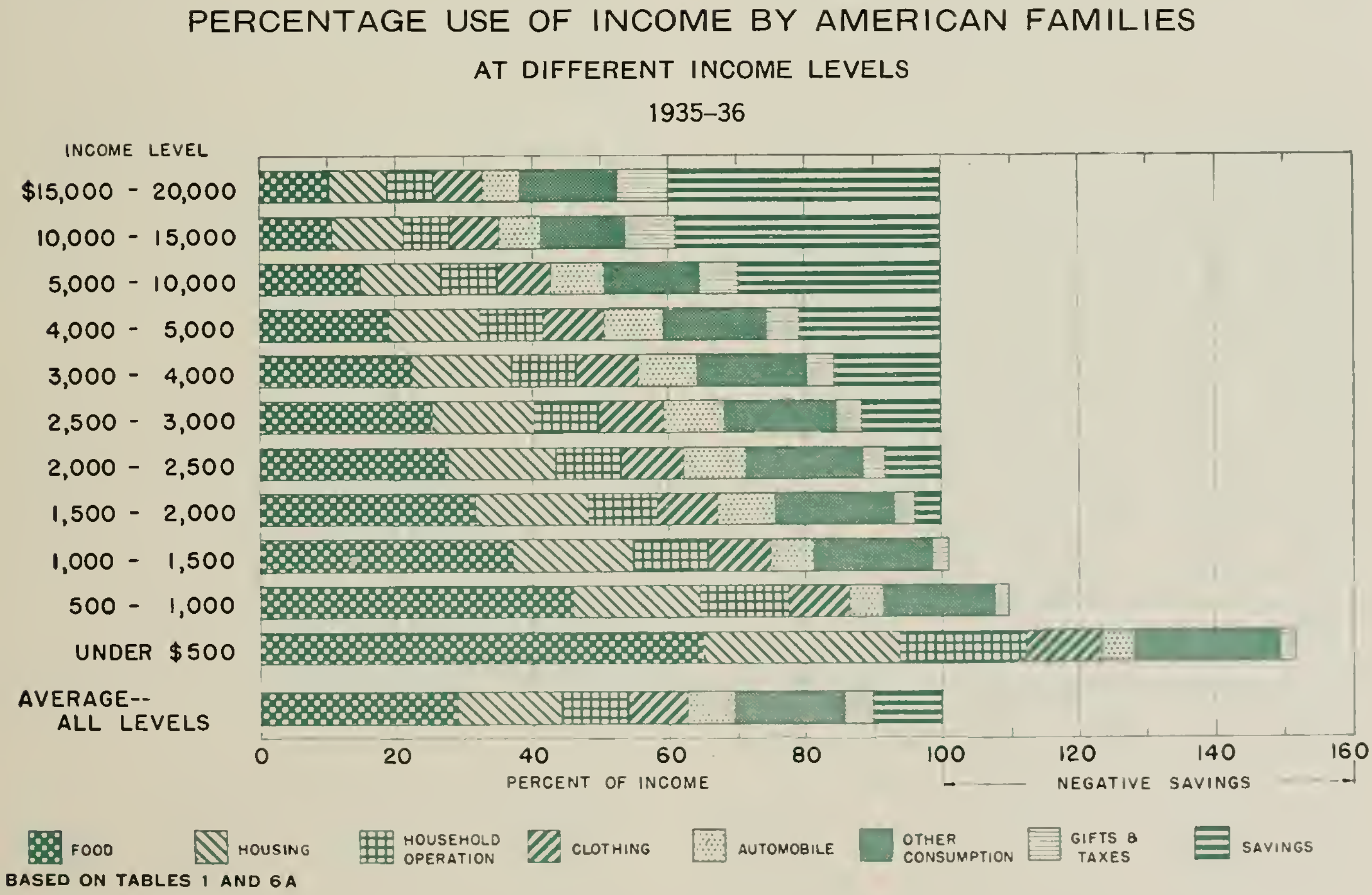

CHART 6

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

particular income distribution of 1935–36. If the proportion of families with very high incomes had been greater, the average percent of savings for the group as a whole would likewise have been greater; if the families had been even more concentrated between the $20,000, and $30,000 levels the average figure for savings might have fallen somewhat below 50 percent.

For the narrower income levels below $20,000, however, the pattern of savings shown in table 1 is very little affected by the particular distribution of families within the income interval in 1935–36. Even for the three levels between $5,000 and $20,000, where the range of incomes is as wide as $5,000, a shift in the proportion of families toward the lower or the upper end of the range would modify only slightly the average savings figure shown.

What Savings Include

Since there is no obvious and accepted definition of consumer savings it will be well to indicate the coverage of the savings figures presented in this study. Following the definition in the Study of Consumer Purchases, savings are here defined as the net change in assets and liabilities of the family (or single individual) during the year, exclusive of gains or losses from revaluation of assets. Appreciation or depreciation in the value of stocks or other holdings, whether realized or not, are not included in income, and accordingly are not considered in savings.[27]

This definition of savings, together with the definitions of income and expenditure used in this report, conforms to the accepted rule that savings equals income less expenditures for current consumption and for gifts and personal taxes. It should be remembered, however, that the Consumer Purchases Study data used as a basis for the present savings estimates were not obtained by the simple procedure of subtracting from income the sum of consumption expenditures and outlays for gifts and personal taxes. For each family covered in the study an independent and detailed estimate was obtained of changes in assets and liabilities during the year. As has already been indicated, this direct estimate of savings made it possible to test the internal consistency of the income and consumption schedules of the family.[28]

In calculating the savings of each family in the Consumer Purchases Study, changes in assets were taken to include all purchases and sales of capital assets, both tangible and intangible, and in addition changes in cash on hand and in banks. Capital assets included houses, improvements on houses, and capital goods used for business purposes; they excluded repairs on houses and the purchases of durable consumer goods other than houses, such as furniture and automobiles, whether or not bought on the installment plan. Amounts due on installments were treated as liabilities, and increases (or decreases) in them during the schedule year were included as negative (or positive) savings. Life insurance, annuity, and endowment policies were treated as assets, and all premiums paid on them were included as savings, no deductions being made for that part of the premium payment which might be considered as current expenses for protection.

Other forms of property treated as assets were real estate, stocks and bonds, improvements on real estate, and loans. Liabilities included mortgages, notes, back rents, back taxes, charge accounts, and other bills due. No specific allowance was made for depreciation of owned family homes or other fixed assets.

Increases in assets and decreases in liabilities thus constitute positive savings; decreases in assets and increases in liabilities constitute negative savings. In accordance with these definitions, a family could have positive savings and yet end the year in debt if, for example, it paid off part of the mortgage on the home during the year. Similarly, a family might have negative savings and still end the year with large holdings of property if it consumed part of its principal during the year.

Consumption Expenditures

While the volume of consumer savings is a matter of general economic and social concern, there is probably an even wider interest in information on consumption expenditures. How much, on the average, do American families in the different income classes devote to current living expenses? How are these expenditures divided among the major classes of goods and services?

We have seen that the proportion of income used by families for current consumption needs drops sharply as the size of income increases, making room for increased savings and, to a lesser extent, for increased outlays for gifts and personal taxes. But it should not be imagined that this decline in the percentage of income devoted to current consumption means a decline in actual dollar expenditures. On the contrary, outlays for consumption goods and services rise very rapidly as income

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[27] It should be noted, however, that in instances where stocks or other assets were bought and sold within the schedule year, profits or losses on such transactions were included in income and in savings. For farm families the value of net increase or decrease in the quantity of livestock owned or of crops stored for sale between the beginning and the end of the year is included as positive or negative income and hence as positive or negative savings. Only differences due to quantity changes in inventory are included, however; differences in value due to price changes are excluded. It should be further noted that inheritances and gifts of money received during the year and not used for current family living, and cash or bonds received from payment of the soldiers' bonus (with minor exceptions) are excluded from income and hence from savings. These receipts were entered on the schedules of the Consumer Purchases Study as decreases in one form of assets and increases in other forms of assets, and thus do not appear in the net figure for changes in assets and liabilities.

[28] See p. 16. For further explanation and facsimiles of schedules, see Appendix B, pp. 108 and 109–120.

TABLE 2.—*Average expenditures of American families for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Average expenditure per family for—													
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$466	$203	$90	$57	$35	$15	$22	$6	$9	$9	$9	$3	$4	$2	$2
$500–$750	707	310	125	85	56	28	29	11	16	14	14	5	6	3	5
$750–$1,000	914	380	161	106	78	44	38	17	27	18	19	9	9	4	4
$1,000–$1,250	1,127	433	203	130	100	70	47	25	38	24	22	11	11	7	6
$1,250–$1,500	1,316	487	230	149	123	93	57	31	48	27	27	14	14	9	7
$1,500–$1,750	1,512	527	267	166	147	123	71	42	56	32	29	16	15	11	10
$1,750–$2,000	1,684	558	302	186	164	154	79	49	68	35	33	18	16	15	7
$2,000–$2,500	1,968	617	349	213	207	200	91	62	76	42	38	22	20	20	11
$2,500–$3,000	2,302	690	404	260	255	242	109	81	84	49	41	24	22	30	11
$3,000–$4,000	2,729	770	485	319	316	289	132	105	102	54	48	31	27	37	14
$4,000–$5,000	3,276	852	571	400	408	382	158	136	110	66	53	35	31	57	17
$5,000–$10,000	4,454	1,038	784	584	557	522	248	206	158	89	62	48	41	83	34
$10,000–$15,000	6,097	1,214	1,204	761	829	681	227	340	227	114	79	114	57	227	23
$15,000–$20,000	9,134	1,785	1,490	1,179	1,265	919	416	486	277	156	104	399	69	537	52
$20,000 and over	14,822	2,261	2,721	2,177	2,177	1,759	837	921	461	251	126	419	126	502	84
All levels	1,389	467	248	162	141	114	64	41	47	28	26	16	13	15	7

[1] For explanation of items included in each category, see pp. 93–98.

advances. Starting with an amount of $466 for families with incomes of less than $500, average consumption expenditures increase to nearly 10 times that amount for families in the $5,000 to $10,000 group, to nearly 20 times as much for those in the $15,000 to $20,000 group, and to more than 30 times as much for those with incomes of $20,000 and over. These figures are shown in table 1 and in charts 5 and 6 presented above.

Chart 5 also shows how these total expenditures are divided among the six major classes of consumer goods and services. A more detailed break-down of these figures is given in table 2 covering 14 categories of consumption.[29] The percentage of income devoted to each class of expenditure is shown in chart 6 and appendix table 6A, and the percentage of total expenditure allocated to each category in chart 7 and table 7A.

When we consider the amounts spent on these various items of consumption, it is clear that the three major consumer wants—food, shelter, and clothing—claim by far the largest share of the total expenditure at all income levels. As chart 7 shows, families with incomes under $500 devoted, on the average, over 80 percent of their consumption expenditure to these basic wants. Even those families with incomes of $15,000 to $20,000 allocated 66 percent of all current expenses to them.

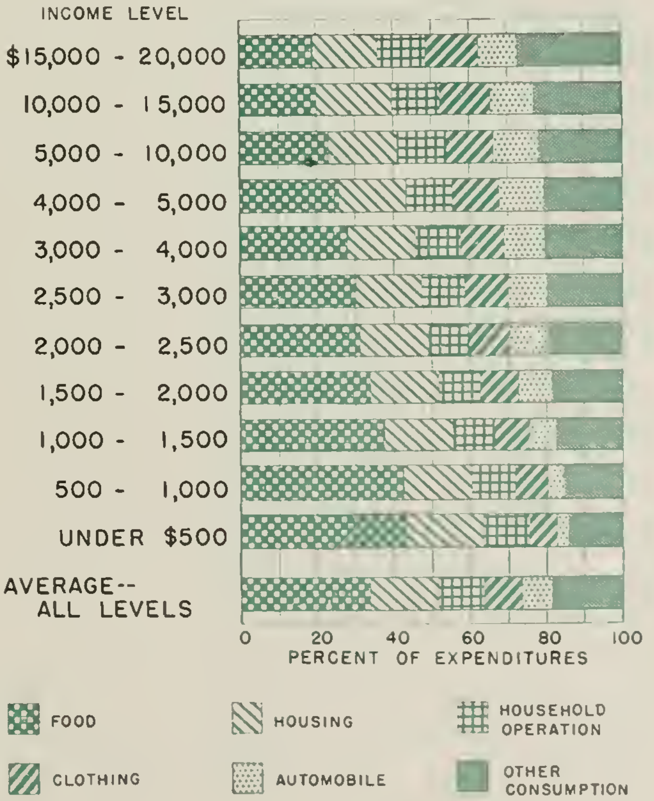
Food

Food is the largest single category of expense at every income level below $20,000. Above that income level housing steps up to the first place. In the lowest income class shown—under $500—food demands two-

PERCENTAGE ALLOCATION OF EXPENDITURES BY AMERICAN FAMILIES

AT DIFFERENT INCOME LEVELS

1935-36



BASED ON TABLE 7 A

CHART 7

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[29] For detailed discussion of items included in each category, see Appendix B, pp. 93–98.

thirds (65 percent) of the average income. It accounts for a somewhat smaller proportion of expenditure—44 percent—since purchasing power at this income level is augmented by past savings and by borrowing. As we go up the income scale, food receives gradually declining shares of income and of expenditure, shrinking to 5 percent and 15 percent, respectively, for families with incomes of $20,000 and over.

It is apparent from charts 6 and 7 that food declines in relative importance more rapidly with advancing income than does any other category of consumption. Yet it is significant to note, in chart 5, the marked increase in dollar outlays at successive income levels. Food expenses for the income class below $500 average only $203 for the year, while at the income level of $20,000 and over they averaged more than ten times that amount. This wide range in expenditures reflects, of course, differences in the variety and palatability of the food consumed as well as differences in the nutritive value of the diet.[30]

The major part of the family food bill is, of course, for food purchased in the retail market, and prepared and served at home. The outlay figures presented here, however, also include the cost of meals in restaurants, the cost of candy, chewing gum, and similar items, and the amount spent for soft drinks and for beer, wine, and other alcoholic beverages. In addition, they include the imputed money value of food produced by farm and rural nonfarm families for their own use.[31] The value of food raised by urban families for their own use is naturally very small. Since no imputed value for such food was included in the estimated incomes of urban families, none is included here in their estimated expenditures.[32]

For farm families, the value of home-produced food represents 50 percent or more of the total food "expense" at most income levels and for rural nonfarm families 6 percent or more. But in the average pattern for all families—including both urban and rural—home-produced food becomes a comparatively minor item. This is particularly true at the upper income levels, where the proportion of rural families is relatively small.

Thus for all families with incomes below $500, the average imputed value of home-produced food equals about one-fourth (23 percent) of the total food "expense," and only 10 percent of the total expenditures for family living. These proportions drop rapidly as income advances, so that for families with incomes above $20,000 the imputed value averages only 2 percent of total food expense and three-tenths of 1 percent of the total family expenditures for current consumption. These relationships are brought out in tables 6A, 7A, and 8A in Appendix A.

Housing

Housing occupies the second place in family expenditures for all income levels up to $20,000, where it replaces food as the largest class of expenditure. For income groups below $1,500, housing costs are less than half the outlays for food at the same income level. Above $1,500, housing expenses mount more rapidly than do food expenses, so that the two categories become almost equal in importance at the $10,000 to $15,000 level.

In percentage terms, the proportion of income devoted to housing drops from 29 percent at the lowest income level shown to 6.5 percent at the highest. This is approximately the same rate of decline as that for all consumption categories combined, so that the percent of current consumption going to housing remains fairly constant—approximating 18 percent at all income levels. This is clearly shown in chart 7.

The data on housing expenditures include direct money expense plus the imputed value of the occupancy of owned homes. As table 9A shows, imputed housing accounts for somewhat less than a third of the total-housing figure for the low and middle income ranges, and only slightly more at the high-income levels. The figures given include imputed housing values for all home-owning urban and village families, and for all farm families—both those owning their farms and those renting them. If a family owned a "vacation" home, used for part of the year, an imputed housing value is included for the months it was occupied.

Money expenditure for housing consists, for the most part, of rent paid for leased homes, and money expenses for the maintenance of owned homes, such as interest on mortgages, taxes, and repairs. In those cases where heat, refrigeration, and light were supplied to renting families without specific charge, the value of such services is covered by the rent paid, and hence is included in the estimated expenditures for housing. When specific outlays were made for such services they were included as household operation expenses.

Money expenditures for housing also include the cost of a rented "vacation" home or other lodging accommodations while on vacation; dormitory or other lodging for children away at school; and hotel room, trailer camp, and other lodging expense incurred while traveling for pleasure.

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[30] A comparison of these food expenditures with the cost of an adequate diet will be made in a later report.

[31] For method of imputing value to home-produced food, see Appendix B, p. 94.

[32] For discussion of items included in income estimates, see *Consumer Incomes in the United States*, p. 41.

Household Operation

Ranking next to housing in family expenditures is household operation. Actual outlays for this category of expense increase gradually as we move up the income scale, but, like housing expenses, they remain a very constant proportion of total outlay, representing about 12 percent of total consumption at every income level. The percent of income devoted to household operation drops from 18 percent at the lowest income level shown to 5 percent at the highest.

This class of consumption expenditure covers a wide variety of goods and services necessary for operating a household. Major items included are electricity, gas, coal, and other fuels for heating and lighting purposes and for motor power. As noted above, heat, light, and refrigeration costs are included with housing expenditures when they are covered by the regular rent payment. Expenditures for full- and part-time household help are also included in household·operation, as well as ice, telephone, laundry service, miscellaneous household supplies, and other minor operating expenses. The imputed value of home-produced ice and fuel used by farm families is a minor item included in this category.

Clothing

Clothing takes fourth place among the consumption categories at most income levels, but at the upper income levels it tends to equal, or to exceed, household operation in total outlay. Because the average amount spent for clothing increases more rapidly with increasing income than do the amounts spent for food, housing and household operation, the percent of total expenditure devoted to clothing rises as we move up the income scale. Absorbing only 7.5 percent of total expenditures for the income class under $500, it expands to 15 percent of total consumption expenditures for the income class $20,000 and over. Nevertheless, clothing expenditures do not increase as rapidly as income, so that the percent of income devoted to this category declines at the upper income levels.

Clothing expense includes the cost of wearing apparel and jewelry bought for all members of the economic family, plus expenses for dry-cleaning, repairs, and storage. Laundry costs do not appear in this category but are, as noted above, included with expenses for household operation.

Automobile

Passing from these major categories to automobile expenditures, we find a somewhat different pattern of variation among income levels. Automobile expenditures more than keep pace with increases in income up to $2,500—rising from 5 percent to 9 percent of income. Above $2,500 they decline, but still equal 4 percent of income at $20,000 and over. At one end of the income scale, automobile expenses average only $15 per family; at the other end they average $1,759. In terms of total expenditures they show a sharp increase, representing 3 percent for the income class below $500, and 12 percent for the income class $20,000 and over.

It must be emphasized again, in connection with automobile expenses, that the average figures presented in table 2 and elsewhere are based upon all families in a given income class and not upon those having expenses for a given category. The fact that the proportion of car-owners is much smaller at the low than at the high income levels explains much of the variation in average automobile expenditures.

Amounts paid for the purchase of new and second-hand automobiles bought during the year studied are included in these data, in addition to expenses for gas, oil, accessories, rentals, fines, automobile insurance, taxes, parking, and garage fees. The proportion of automobile expense chargeable to business costs was deducted in estimating family expenses.[33]

Medical Care

The variations in medical expense by income level resemble those for food and other "necessity" items, in that the percent of income devoted to them decreases from the low to the high incomes.[33a] Families with incomes below $500 spent, on the average, 7 percent of their income for medical care, as compared with the 2 percent spent by families with incomes of $20,000 and over. The actual dollar outlays, shown in table 2, range from an average of $22 at the lowest income level to an average of $837 at the highest.

Principal items included in these expenditure data are amounts paid to physicians, oculists, dentists, and other specialists. Expenses for clinical or hospital care, special examinations and tests, medicines and drugs, eye glasses and opticians' fees, medical appliances and supplies, and accident and health insurance are also included. As pointed out elsewhere in the report, free medical care supplied by public and private agencies is not covered by these figures, although in some communities it supplements to a significant extent the family expenditures for medical care, particularly at the low income levels.[34]

Recreation

The luxury element in recreation, as in automobile expenditures, is apparent from the slight rise in the percent of income devoted to this class of consumption items through the lower income levels and the steady rise in the percent of total expenditures throughout the income scale. Average dollar outlays for different income classes, shown in table 2 above, range from $6 to $921. The corresponding percentages of expenditure range from 1 percent to 6 percent while the percentage of income rises from 2 percent to 3 percent, and drops again at the $20,000 and over level to 2 percent. These percentage figures, like those for other categories, appear in tables 6A and 7A.

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[33] For method of estimating these costs, see Appendix B, p. 96.

[33a] For discussion of relative dispensability or urgency of different categories of consumption, see pp. 39-40.

[34] See p. 66.

Among the many items included in the recreation category are paid admissions to movies, ball games and other spectator sports, fairs, circuses, dances and amusement parks; equipment, supplies, fees and other costs for games and sports; purchase of radios and other musical instruments and supplies; photographic supplies; children's toys and play equipment; pets; entertaining (exclusive of food cost); dues to social and recreational clubs; gambling losses; and expense for hobbies and collections. Expenses for sport clothing and for lodging, transportation, and food while on vacation or pleasure trips are not included here.

Furnishings

Expenses for household furnishings and equipment are a trifle higher than recreation costs at the lower income levels, but become relatively less important for families with higher incomes—rising only to $461 at incomes of $20,000 and over. At no income level does this category of expenditure exceed 4 percent of total income or of total expenditure, and at the highest income level it accounts for only 1 percent of income and 3 percent of expenditures.

This category includes expense for furniture and for kitchen, cleaning and laundry equipment; glass, china, and silverware; floor coverings; various household textiles; and miscellaneous items such as luggage, repairs of household equipment, and insurance on furniture.

Personal Care

Personal care expenses occupy a small but very stable position in the family spending pattern, equalling approximately 2 percent of the total consumption outlay at every income level. The percent of income declines slightly as income advances, dropping from 3 percent at the lowest level to 0.6 percent at the highest level. Average dollar expenditures range from $9 to $251 for the different income classes. These amounts cover the costs of haircuts, shampoos, shaves, manicures, permanent waves, and similar services; and the purchase of all toilet articles and preparations, such as toilet soap, tooth paste, cosmetics, combs, razors, and powder puffs.

Tobacco

Average outlays for tobacco and smoking accessories equal or exceed outlays for personal care among the lower income groups, but advance less rapidly as we move up the income scale, so that at $20,000 and over tobacco expenses are about half as much as expenses for personal care—$126 as compared with $251. The percent of income spent for this category of consumption accordingly falls from 3 percent for incomes under $500 to only 0.3 percent at the highest income level. This behavior suggests that tobacco is regarded as a necessity item at all income levels.

Smoking supplies, such as pipes, cigarette holders, lighters, and humidors are included in this category of expense, in addition to the amounts spent on cigarettes, cigars, and chewing and smoking tobacco.

Transportation Other Than Auto

Expenses for transportation other than automobile average only $3 for incomes below $500 and increase very gradually up to incomes of $10,000. Above that point they rise more rapidly to an average of $419 for incomes of $20,000 and over. The percent of income devoted to this category remains remarkably constant—approximately 1 percent at all income levels.

Included in these amounts are the costs of all family travel and transportation other than by the family automobile. In the upper income groups this may mean round-the-world cruises and transcontinental airflights, as well as taxicabs, buses, and streetcars. The figures also include the costs (less proportion chargeable to business) of purchase and upkeep of motorcycles, boats, and other conveyances used primarily for transportation. Expense for bicycles, boats, and other vehicles used primarily for recreation are included in that category.

Reading

Expenses for reading occupy a comparatively small place in total family spending, not exceeding 1 percent of income or of total expenditure at any income level. Average dollar outlays range from $4 to $126 for the income levels shown in table 2. Daily and weekly newspapers, magazines, and books for general reading, book rentals and library fees are all included in these figures. Costs of school books and picture books for young children are classified with education and recreation expenditures, respectively. Costs of technical books used in connection with an occupation were deducted as business expense in estimating incomes, and hence are not included in any consumption category.[35]

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[35] For discussion of free reading facilities provided by public and private libraries, see p. 66

Education

The average family expenses for education shown in table 2 afford a very incomplete measure of the educational services actually available to American consumers, since the major part of the education bill of the Nation is paid by governmental agencies and financed by taxation. The small amounts expended in the lower income levels represent for the most part expense for school books and supplies. Tuition expenses at private schools, and special lessons in music, dancing, art, and similar accomplishments account for somewhat larger outlays as income increases.

Thus the average expenditures rise from $2 at one end of the income scale to $502 at the other end. The percent of income devoted to educational costs rises also from 0.6 percent for incomes under $500 to a maximum of 3.1 percent for incomes between $15,000 and $20,000. It should be noted that these data are exclusive of expenses for room and board of persons attending school away from home; such expenses are classified with family housing and food expenditures.

Other Living Expenses

Miscellaneous items of expenditure not properly allocable to any of the above categories of consumption absorb considerably less than 1 percent of the family income at all income levels, ranging in dollars from an average of $2 for families with incomes below $500 to $84 for families with incomes above $20,000. Interest on debts incurred for family living expenses; bank charges; lawyers' fees; funeral expenses, and purchase and upkeep of family cemetery lots are the principal items covered in this final category of expenditure.

Outlays for Gifts and Personal Taxes

In addition to meeting their own living expenses, most families make some outlay during the year as gifts to relatives and friends, as philanthropic contributions, or as contributions to the church, and many also make some payment in the form of income taxes or certain other personal taxes not elsewhere accounted for in the study. The amount of income thus transferred by American families in 1935–36 is also shown in table 1 and in charts 5 and 6.

Even families with incomes below $1,250, it will be noted, paid out a few dollars during the year for such purposes. Small as these outlays were, they absorbed about 2 percent of the total family income. Beyond these low-income levels the proportion of income devoted to gifts and to the particular personal taxes covered increased very slowly, remaining under 5 percent up to the $5,000 level and under 8 percent up to $20,000. For incomes beyond $20,000, the average figure was 14 percent.[36]

This average outlay at the highest income level shown—amounting to $5,820 out of an average income of nearly $42,000—must, of course, be interpreted with the same reservations in mind as those considered above in connection with the estimates of average savings. That is, the figure is an average for a very wide range of incomes, and does not reveal the outlay for gifts and personal taxes made by families in the very highest income brackets; it is strongly affected by the 1935–36 distribution of families throughout this income range; and it is, in addition, a tentative estimate, subject to a greater margin of error than the figures for the lower income levels. But despite these limitations, it throws a significant light on the extent to which the prevailing inequality of income distribution is offset by transfers of income from the higher income levels through voluntary contributions and through income taxes and certain other personal taxes.[37]

Income Taxes and Certain Other Personal Taxes

Particular significance attaches, of course, to the amount of income transferred as personal taxes by the various income groups. The average figures for gifts and taxes combined, shown in table 1, have therefore been divided to give separate estimates for the two forms of outlay. These figures are presented in table 10A.

These estimates of average personal taxes paid by American families, it must be understood, cover only Federal and State income taxes, poll taxes, and certain personal property taxes and, therefore, in no way represent total taxes paid. Various other taxes levied upon consumers are merged with the expenditures for current consumption. Thus property taxes on owned homes and on automobiles are included as expenses for those categories of consumption. Gasoline taxes also appear in automobile expenses. Sales taxes and excise taxes on tobacco, liquor, and amusements are likewise merged with expenditures for the goods or services to which they apply. Taxes levied on business operations and on income-producing property were, of course, deducted as business expenses in calculating net income.[38]

Of the particular personal taxes for which separate figures are presented, income taxes form distinctly the largest item, far outweighing the minor personal property taxes included and the poll taxes levied in some States. Thus it is not surprising to find a very small average outlay for these three types of personal taxes throughout the low- and the middle-income levels. Even at the $5,000 to $10,000 level, however, the average personal tax payment amounted to only $99—about 1½ percent of the average income, and at the $15,000 to $20,000 level to $624—3½ percent of income. Above the $20,000 level, of course, the proportion of income paid out as such taxes showed a decided increase, so that the average for all families in this wide income range amounted to almost $5,000, or about 12 percent of their average income.[39]

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[36] The particular personal taxes included in these figures represent, of course, only a fraction of the total taxes paid by consumers, and hence afford no indication of the relative tax burdens borne by the different income classes. For discussion, see p. 57 below.

[37] For further discussion of this point, see pp. 59–61.

[38] Since inheritances and gifts were not counted as current income (unless used for current consumption) inheritance, estate, and gift taxes do not appear in the expenditure estimates. Corporation income taxes are likewise excluded. For discussion, see p. 57 below.

Reliability of the Estimates of Personal Taxes

These average figures for the higher income levels may appear on first impression far too low to cover even the one item of Federal personal income taxes, much less to allow for those few additional types of tax payments included in the estimates. But it must be remembered that a direct comparison cannot be made between the average personal tax payments shown in this study and the taxes levied by the Federal Government on incomes of various sizes. In the first place, the tax rates imposed by the income-tax law apply to "net income" after various deductions have been made.[40] Secondly, net taxable income does not include imputed values and various other types of income included in the present estimates. And in the third place, the average 1935–36 outlays for personal taxes presented here cover income taxes paid on the previous year's income—that is, on 1934 or 1935 incomes, which on the average were somewhat lower than incomes in the 12-month period studied.[41]

Furthermore, these 1935–36 figures represent personal taxes actually imposed upon families. The average outlay for all families at each income level is thus somewhat lower than the tax rate imposed on incomes of that size, because of the failure of some families to file income tax returns and of other families to report the full amount of their incomes, and because of the exemption of certain groups, such as State and municipal employees, from the Federal income tax.

When allowance is made for these various points of difference—as well as for the other types of tax payments included in the present estimates—the average personal tax payments shown at the various income levels in the present study appear to be in very reasonable agreement with the averages shown by the Federal income tax statistics.[42]

Additional evidence of the reliability of the average tax figures presented is provided by an "outside" check on the estimated total of such personal tax payments made by American families in 1935–36. This check, described in part II of the report, indicates that the estimate of aggregate personal taxes of all consumers, built up from these average figures, corresponds fairly closely with estimates built up from Federal income tax reports and other independent sources of tax data. The total outlay for personal taxes shown in the present study, in fact, runs a little above the more comparable of the two figures derived from other sources.[43]

Thus there seems ample reason to believe that the average personal taxes shown in table 10A represent a fair picture of the outlays for these particular taxes made by families in different income classes in 1935–36. In considering the average figure shown for families with incomes of $20,000 and over, however, it must be remembered that more than half of the 93,000 families in this wide income class had incomes of less than $30,000,[44] so that the average for the group as a whole does not reveal the higher taxes paid by the very small number of families at the top of the income scale.

Total Outlay for Gifts

When we compare the amount of income that American families devote to voluntary gifts with the amount they pay out as direct taxes, we find that the average outlay for gifts is somewhat larger at all income levels up to $20,000. Even so, the proportion of income transferred as gifts remains less than 3 percent up to the $2,500 level, and does not quite reach 5 percent even at the $10,000 to $15,000 level. For incomes beyond $15,000, the percentage again declines, so that the average for all families in the $20,000 and over level amounts to approximately 2 percent of their average income.

In connection with these separate estimates for gifts, shown in table 10 A, the fact must again be stressed that the figures for the higher income levels are subject to a considerable margin of error. But even when full allowance is made for this limitation, it is clear that the share of income devoted to gifts by the average American family is relatively modest, even in the highest income brackets.

Three Kinds of Gifts

This picture of American habits of giving is, of course, a composite picture, blending together contributions of many different types. It is possible, however, to make a rough division of these total figures, so as to obtain separate estimates for the three main kinds of gifts—those made to relatives and other persons not members of the economic family, those made to churches and other religious organizations, and those made to community chests and other welfare agencies. Such estimates are also presented in table 10A. For the lower income levels the figures can be accepted as fairly reliable, but for incomes beyond $10,000 they are best regarded as approximations. No attempt is made, therefore, to show separate averages for the different income levels above $10,000, and even the average for all incomes of $10,000 and over must be taken merely as roughly suggestive of the relative importance of each type of outlay.

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[39] For discussion of the total tax burden borne by the different income classes, see pp. 57–61 below.

[40] For discussion of the adjustments needed to make net income as defined for income tax purposes correspond with family income as defined in this study, see preceding report *Consumer Incomes in the United States*, pp. 82–83.

[41] See p. 58.

[42] For further explanation, see Appendix B, pp. 138–139.

[43] See pp. 57–58.

[44] See preceding report, *Consumer Incomes in the United States*, table 3, p. 18.

Considering only those figures for incomes under $10,000, it is interesting to note that at the low income levels the largest share of the total outlay for gifts is made to the church, but at the middle and high income levels gifts to relatives and friends claim the major share. In terms of percentage of income, contributions to the church remain almost constant, amounting to approximately 1 percent of the family income, while gifts to individuals increase slightly as income advances, from less than 1 percent below the $1,250 level to 2½ percent at the $5,000 to $10,000 level. At all income levels, contributions to welfare agencies remain relatively minor, claiming only one-half of 1 percent of income even at the $5,000 to $10,000 level.

Average Family Expenditures in 1935–36

It is convenient at this time to summarize the patterns of spending of American families in terms of the average expenditures of all of the 29 million families of the Nation. There are several ways in which this may be done—each method having certain limitations as well as advantages. The charts and tables presented in this report have used the most familiar of these measures of average expenditures—the mean expenditures per family for all income classes combined.

The Average Expenditures

The over-all spending pattern appearing at the bottom of the various charts and tables is significant only as an arithmetic measure of the per-family outlays for each class of goods and services, for gifts and direct personal taxes, and for savings. The mean expenditure figures are obtained by multiplying the average outlay figures for each income class by the number of families in that income class in 1935–36, adding up the total outlay for each category, and dividing the aggregates by the total number of families in the United States.

The resulting pattern of family consumption is essentially a hybrid pattern, applicable to no identifiable group of families. It reflects the consumption habits of the very rich and the very poor, as well as those of families with incomes approximating the average income in 1935–36. It does not represent the expenditures of a "typical" American family because the larger expenditures and savings of families at the top of the income scale give each of these few families much more influence on the average figures than each of the many families at the bottom of the income scale.

This composite pattern for all income levels combined is convenient chiefly because the mean expenditures per family afford a cross-section picture of the aggregate expenditures of the Nation's families in 1935–36. The over-all average pattern is definitely applicable to 1935–36, since it is based on the distribution of families by income level for that particular year. The 1935–36 average spending patterns at the different income levels probably bear a close resemblance to the patterns of family spending at the same income levels in the years immediately preceding and following the period covered by this study. But if the proportions of families in the lower, middle, and upper income ranges differed significantly in any of these years, the mean expenditures per family for all income levels combined would also differ. With these limitations of the figures clearly in mind, it is interesting to consider the average pattern of family spending in 1935–36.

The average income received by American families in that year was $1,622, as is apparent from table 5 below. Of this average amount, $1,389 was spent for consumer goods and services used during the year; $45 was contributed as gifts; $24 was paid out as direct personal taxes; and the remaining $164 was saved. The average percentage allocation of income among these four classes of outlay was, therefore, 85.6 percent for current consumption, 2.8 percent for gifts, 1.5 percent for direct personal taxes, and 10.1 percent for savings.

The average food bill for the 29,400,300 families was $467—representing 29 percent of the average income and 34 percent of average expenditures for all consumption items. The combined expenditures for housing, household operation, and furnishings accounted for an almost equivalent sum of $457, or 33 percent of total current consumption. Clothing, the third important consumer want, took $141, just 10 percent of total consumption expenditures, and automobile expenses took $114, or about 8 percent. Doctors' bills and other medical care cost $64, leaving a balance of $146 to be stretched over seven minor groups of items, no one of which commanded an outlay of as much as $50. Beginning with $41 for recreation, successively smaller sums were allocated to personal care, tobacco, transportation other than automobile, education, reading, and miscellaneous items.

The Spending Pattern at the Average Income Level

As noted above, the average pattern of family consumption for all income levels combined is a composite pattern, not to be confused with the average pattern of spending followed by families whose incomes actually approximate the average income of $1,622. In order to see the spending pattern of families with the average income, we can turn to the average outlay figures for the $1,500 to $1,750 income level, shown in the tables already presented.

Table 1 reveals that families within this income range spent, on the average, 94 percent of their income to meet current living expenses, as compared with the 86 percent in the average pattern for all families. They were able to put aside only 3.5 percent as savings, compared with the 10 percent in the all-family pattern; and they paid out less than 3 percent of their income for gifts and for the personal taxes separately identified in this study.

Food and housing costs account for most of the difference in expenditure for current consumption, although various other items also showed larger average outlays at the average income level than in the all-family pattern. These differences reflect, of course, the extent to which the average spending pattern for all families is affected by the higher percentage of savings made by families in the top income brackets and by the lower percentage of income used for the necessities of life.

The Spending Pattern of the Median Family

Another spending pattern of some interest is the average pattern of the median family—that is, of the family whose income fell in the middle of the full range of family incomes.

The median family income in 1935–36 was $1,160—half the families in the United States received less than that amount, and half received more.[45] Thus the spending pattern of the median family resembles very closely the average pattern shown for families in the $1,000 to $1,250 income class. As was noted earlier in the discussion, this income group had average expenditures for the year somewhat in excess of the average income. Four-fifths of the total outlay went to provide food, shelter, and clothing, and only a very modest amount—2 percent of income—was contributed as gifts to relatives, friends, and the church, or paid out as income taxes, and other personal taxes.

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[45] See preceding report, *Consumer Incomes in the United States*, p. 21, table 4.

SECTION 2. HOW SINGLE INDIVIDUALS SPEND THEIR INCOMES

In addition to the 29 million families of two or more persons in the Nation in 1935–36, there were about 10 million "single" persons who maintained an independent economic status and thus constituted individual consuming units. Some of these were one-person families, occupying separate households. The majority, however, were lodgers or servants living in private homes or in boarding houses and hotels.

The patterns of spending of these individual consumers differ appreciably from the family patterns of spending at the same income levels. Separate estimates have, therefore, been prepared for them. It was noted earlier that single individuals, although they comprised only 8 percent of the population, received 19 percent of the total consumer income in the year studied. Hence they have an importance in the national consumption picture far beyond their actual numbers.

The Basis of the Individual Patterns

The average spending patterns for single individuals were prepared by the same methods as the family spending patterns, but the sample expenditure data available for their construction were far less extensive and less uniform in character than the sample data for families.[1]

The Sources of Data Used

Information concerning the expenditures and savings of unattached individuals was available from the Study of Consumer Purchases for only two cities, Chicago, Ill., and Portland, Oreg. It was, therefore, necessary to utilize expenditure data from the following three supplementary sources: The Study of Money Disbursements of Wage Earners and Clerical Workers, conducted in Philadelphia in 1934–35 by the United States Bureau of Labor Statistics in cooperation with the Pennsylvania Emergency Relief Board; the Study of the Cost of Living of Federal Employees in Washington, D. C., for 1932–33, conducted by the United States Bureaus of Labor Statistics and Home Economics; and the Young Women's Christian Association Business Girls' Budget Project, covering the year 1931.[2]

Only two consumption patterns at each income level could be prepared from these data—one for all single or unattached men in the United States and one for all single women. The sample data were too scanty to permit the construction of separate spending patterns for each occupational group, or for each region and type of community.

Constructing and Weighting the Average Patterns

In constructing the average spending patterns for families at different income levels it was possible, as noted above, to rely directly on the unsmoothed averages derived from the sample expenditure data collected in the Study of Consumer Purchases. In the case of single individuals, it was found desirable to smooth the raw averages for the various income levels by means of regression curves, in order to eliminate irregularities due to the sparseness and heterogeneity of the sample data. The regression curves, which were constructed separately for single men and single women, were also used to obtain the average expenditure patterns for the high income levels, which were inadequately represented in the sample data.

In combining the patterns for single men and single women to obtain the spending patterns for all single individuals, the smoothed averages at each income level were weighted in accordance with the proportions of the two groups, as shown by the estimated income distributions presented in the report *Consumer Incomes in the United States.*

Savings of Single Individuals

As with families, the first question to be asked about the spending patterns of single individuals is: How

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[1] For more complete description of the sample data and the methods used in constructing the expenditure patterns for single individuals, see Appendix B, pp. 142–147.

[2] Grateful acknowledgment is made to the two Government agencies and to Miss Elsie D. Harper, secretary, Economics Laboratory Division, Young Women's Christian Association, for their cooperation in making available to the National Resources Committee the consumption data collected in these earlier studies.

TABLE 3.—*Average outlay of single individuals for consumption, gifts and personal taxes, and savings,*[1] *by income level, 1935–36*

Income level	Single individuals		Average income per individual	Average outlay per individual for—			Percentage of income for—		
	Number	Percent		Current consumption	Gifts and personal taxes [2]	Savings	Current consumption	Gifts and personal taxes [2]	Savings
Under $500	2, 532, 627	26. 2	$300	$345	$4	−$49	115. 0	1. 3	−16. 3
$500–$750	1, 972, 745	19. 6	623	608	32	−17	97. 6	5. 1	−2. 7
$750–$1,000	1, 599, 030	15. 9	873	815	62	−4	93. 4	7. 1	−. 5
$1,000–$1,250	1, 108, 551	11. 0	1, 119	1, 004	93	22	89. 7	8. 3	2. 0
$1,250–$1,500	877, 956	8. 7	1, 368	1, 180	124	64	86. 2	9. 1	4. 7
$1,500–$1,750	546, 546	5. 4	1, 617	1, 344	156	117	83. 1	9. 7	7. 2
$1,750–$2,000	398, 985	4. 0	1, 868	1, 501	187	180	80. 4	10. 0	9. 6
$2,000–$2,500	493, 751	4. 9	2, 225	1, 714	232	279	77. 1	10. 4	12. 5
$2,500–$3,000	161, 275	1. 6	2, 703	1, 990	291	422	73. 6	10. 8	16. 6
$3,000–$4,000	172, 091	1. 7	3, 411	2, 354	380	677	69. 0	11. 1	19. 9
$4,000–$5,000	61, 596	. 6	4, 491	2, 842	523	1, 126	63. 3	11. 6	25. 1
$5,000–$10,000	85, 898	. 9	6, 827	3, 863	823	2, 141	56. 6	12. 0	31. 4
$10,000–$15,000	20, 861	. 2	11, 999	5, 829	1, 517	4, 653	48. 6	12. 6	38. 8
$15,000–$20,000	9, 436	. 1	17, 052	7, 719	2, 148	7, 185	45. 3	12. 6	42. 1
$20,000 and over	16, 652	. 2	43, 884	14, 671	6, 642	22, 571	33. 5	15. 1	61. 4
All levels	10, 058, 000	100. 0	1, 151	932	103	116	81. 0	8. 9	10. 1

[1] For explanation of items included in each category, see pp 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

much of their incomes did they spend, and how much did they save?

The answer, shown in table 3 and in charts 8 and 9 is much the same as for families. Single individuals at the low income levels spent more than they received as income in 1935–36, and hence had average deficits for the year rather than positive savings. These deficits disappeared at the $1,000 level, however, whereas the family patterns showed average negative savings for all income levels below $1,250. Furthermore, the expenditures in excess of income made by single individuals were relatively less in amount than those made by families in the same income groups.

Thus the average negative savings for single in-

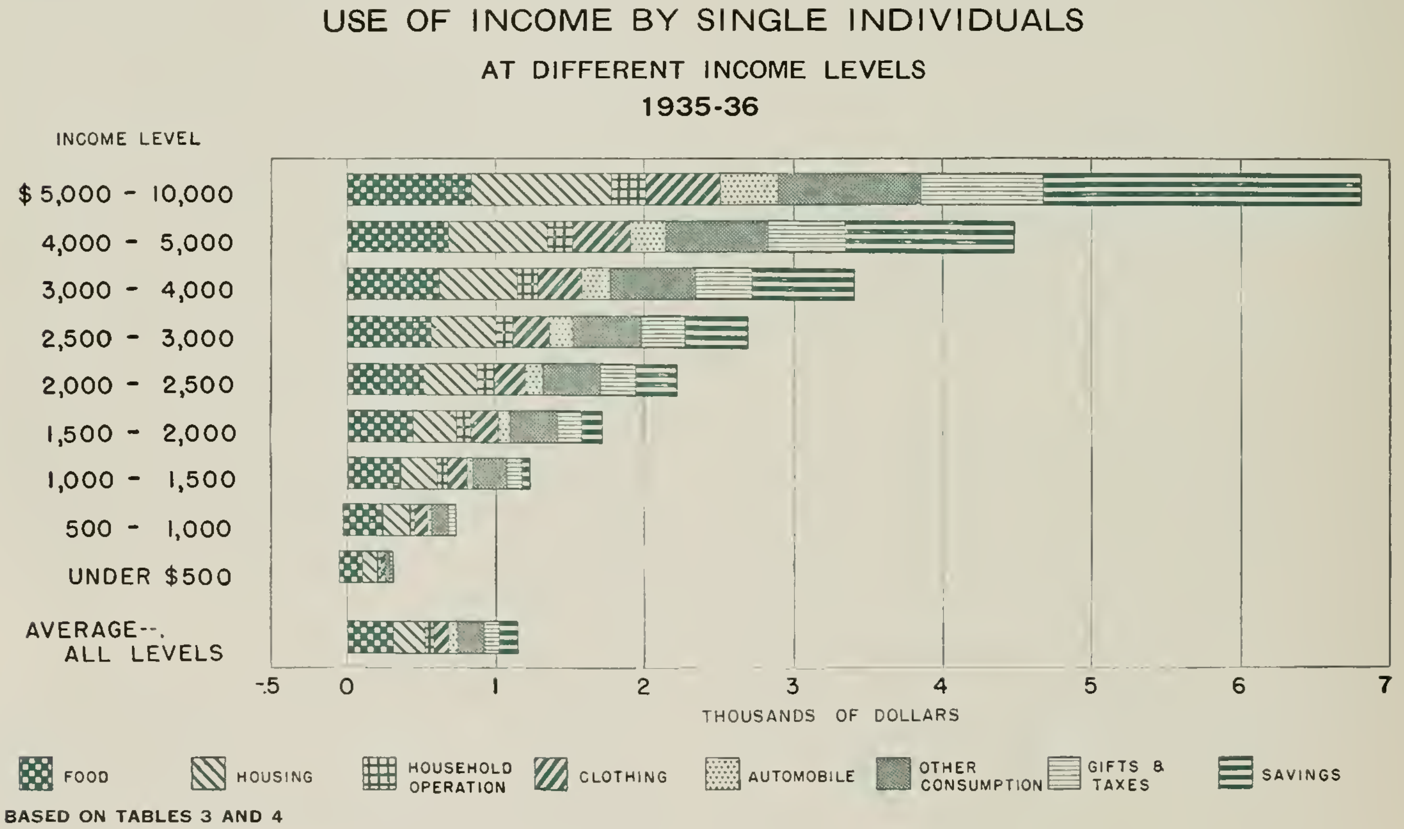

CHART 8

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

dividuals with incomes below $500 were only $49, equal to 16 percent of their average income, while those of families in the same income class were $162, equal to more than half of their average income.

Above $1,000, single individuals saved somewhat larger shares of their incomes than did families. Thus, individuals with incomes between $1,750 and $2,000 had average positive savings amounting to 10 percent of their average income, while family savings at this income level averaged only 5 percent of income. Savings in the income classes between $4,000 and $5,000 averaged 25 percent of income for single individuals and only 21 percent for families. Between $15,000 and $20,000, the comparable averages were 42 percent and 40 percent.

Single individuals with incomes of $20,000 and over saved, on the average, about half their incomes—approximately the same proportion as was saved by families in this income group. This estimate for the highest income level is, of course, subject to the same limitations as those previously indicated in the discussion of family savings.[3]

Consumption Expenditures

We have seen that single individuals reserve a somewhat smaller portion of their incomes for current living expenses than do families. Even so, expenditures for consumer goods and services absorbed the major share of their incomes at all except the highest income levels. The proportion devoted to current consumption amounted to 115 percent of income for those with incomes below $500, and decreased gradually with each successive income level, falling to 57 percent for those with incomes between $5,000 and $10,000. Because of the larger share of income devoted to gifts, the proportion dropped below 50 percent of income after the $10,000 level, instead of after the $20,000 level, as was the case for families. Both groups of consumers, however, spent about the same amount for current consumption purposes through the wide range of incomes above $20,000, with the average for the full income range accounting for one-third of the average income.

When we turn to the expenditures for various classes of consumer goods and services, some interesting points of difference appear in the spending patterns of the two groups. The average amounts spent by single individuals for the main consumption categories are shown in table 4, and, in more summary form, in chart 8; in

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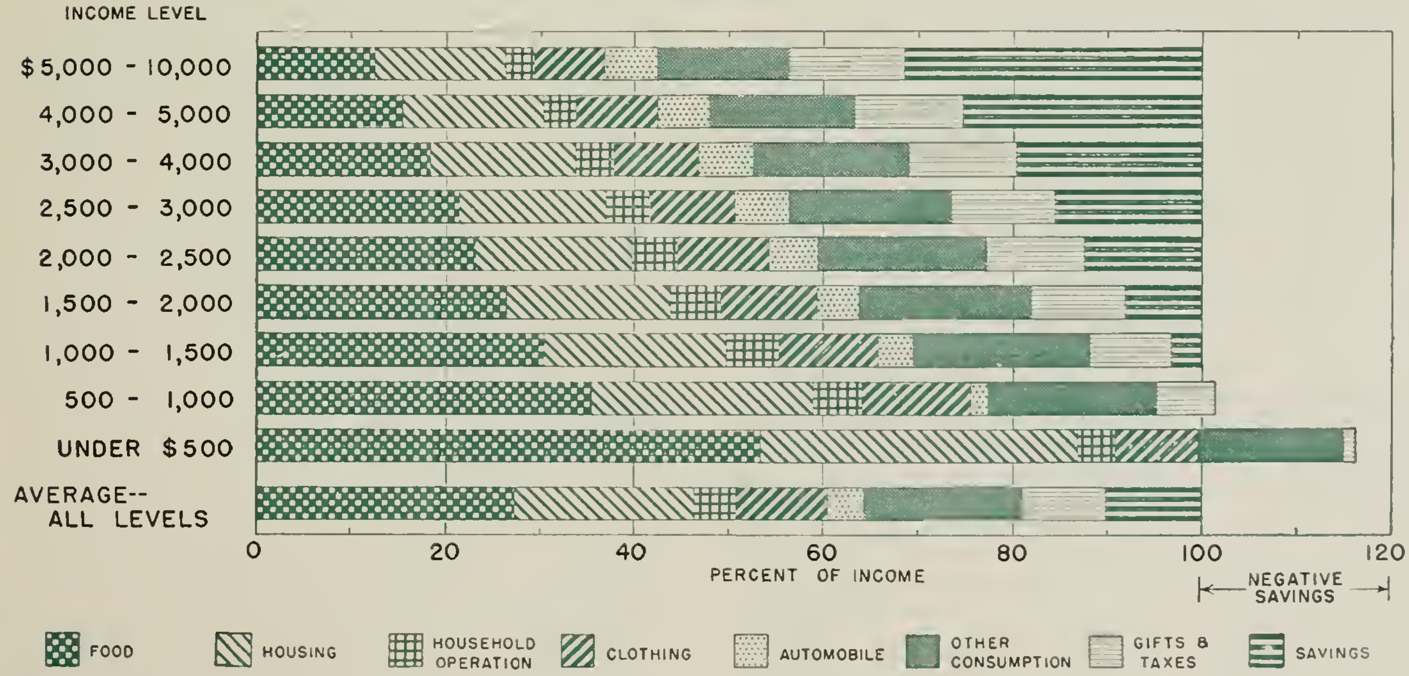
[3] See pp. 21–22. Nearly three-fourths of all single individuals with incomes of $20,000 and over received less than the average income of the group—$43,884; more than half received less than $30,000. See preceding report, *Consumer Incomes in the United States*, table 15, p. 30.

PERCENTAGE USE OF INCOME BY SINGLE INDIVIDUALS

AT DIFFERENT INCOME LEVELS

1935-36



BASED ON TABLES 3 AND 11 A

CHART 9

NOTE. Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

TABLE 4.—*Average expenditures of single individuals for main categories of consumption,*[1] *by income level, 1935–36*

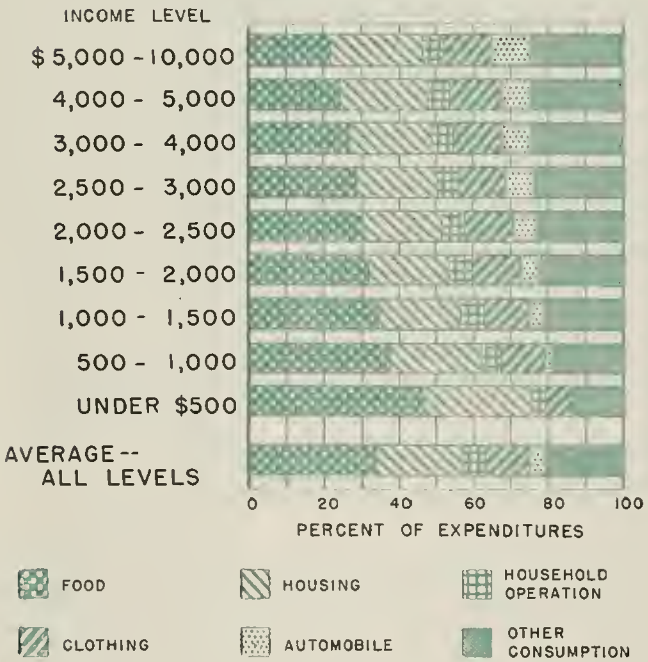
Income level	Average expenditure per individual for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care,	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$345	$160	$101	$12	$26	(2)	$5	$3	(2)	$9	$3	$19	$7	(2)	(2)
$500–$750	608	236	155	31	73	$6	14	16	$2	16	11	31	12	$3	$2
$750–$1,000	815	295	193	46	102	19	22	30	3	20	19	39	16	6	5
$1,000–$1,250	1, 004	352	225	60	123	38	30	45	4	22	27	45	18	8	7
$1,250–$1,500	1, 180	399	258	73	144	56	38	59	4	25	33	51	21	9	10
$1,500–$1,750	1, 344	437	291	84	166	73	48	72	5	27	38	57	23	10	13
$1,750–$2,000	1, 501	471	323	93	189	90	58	84	6	30	42	62	26	10	17
$2,000–$2,500	1, 714	515	369	106	217	114	72	102	8	33	47	70	28	11	22
$2,500–$3,000	1, 990	577	423	123	247	154	91	128	8	36	54	78	31	11	29
$3,000–$4,000	2, 354	636	514	142	302	195	121	156	11	42	58	92	35	11	39
$4,000–$5,000	2, 842	694	667	163	393	237	163	184	17	51	57	116	38	10	52
$5,000–$10,000	3, 863	846	947	211	518	382	253	270	24	60	66	153	44	8	81
$10,000–$15,000	5, 829	1, 070	1, 602	295	771	640	430	408	40	74	69	239	49	13	129
$15,000–$20,000	7, 719	1, 283	2, 124	360	932	1, 014	638	604	47	78	79	291	52	13	204
$20,000 and over	14, 671	2, 200	4, 329	660	1, 736	1, 976	1, 247	1, 122	91	125	114	580	78	25	388
All levels	932	313	221	52	112	42	33	43	3	20	21	42	16	5	9

[1] For explanation of items included in each category, see pp. 93–98.

[2] Less than $0.50.

chart 9 the percentage use of income is summarized, and in chart 10 the percentage allocation of consumption expenditures. Additional figures on the individual pattern of spending will be found in appendix tables 11A and 12A.

PERCENTAGE ALLOCATION OF EXPENDITURES BY SINGLE INDIVIDUALS AT DIFFERENT INCOME LEVELS 1935–36



BASED ON TABLE 12 A

CHART 10

Food

As for families, the largest outlay of single individuals is for food. The percent of total expenditures devoted to food ranged from 46 percent at the lowest income level to 15 percent at $20,000 and over. These percentages are almost identical with those for families, but in dollar value (and hence in percentage of income) the average food bill of single individuals in a given income group tends to be somewhat lower than that of families in the same group. Since food expenses of the average family must meet the needs of four persons, a greater difference than actually appears might well be expected. The fact that single individuals are more apt to eat in restaurants and boarding houses, where service and other overhead costs are included in the price paid for meals, helps to explain the smallness of the differential in actual food expenditures.

It should be noted that dollar outlays for food increased rapidly as income increased, despite the decline in percentage expenditures at the higher income levels. Average amounts spent for food rose from $160 for individuals with incomes below $500 to $1,283 for those with incomes between $15,000 and $20,000. For the small proportion of individual consumers having incomes of $20,000 and over, they averaged $2,200.

Shelter

When we consider the amounts spent for housing, we find that the average outlays of single individuals exceed those of families in the same income group. Here, again, the differential can be largely explained by differences in the housekeeping arrangements of the two types of consuming units. Since the majority of single men and women live as lodgers in private homes or in boarding houses and hotels, the rent they pay includes fuel, light, furnishings, and household service items that are ordinarily included under other categories of family expenditure. This is confirmed by the markedly lower expenditures made by individuals for household operation and for furnishings.

A better comparison of the relative "shelter" costs of families and single individuals can be made by combining the three categories of expenditure. With such a grouping, average family expenditures for shelter are found to exceed somewhat those for single individuals at every income level. This is true both for dollar outlays and, except for one income level, for the percentage of total living expenditures devoted to shelter. At the $1,000 to $1,250 level, for example, the average family spent $371 for housing, household operation, and furnishings combined, or 33 percent of total living expenses, whereas the average individual consumer spent $289, or 29 percent of all living expenses.

Other Living Expenses

For four other types of expenditure we also find single individuals spending somewhat less than do families, at most income levels: automobile expenses run distinctly lower, on the average, up to incomes of $15,000; medical costs a little lower up to $4,000; expense for personal care a little lower for all except the poorest income groups; and education expenses much lower for the higher income groups.

These smaller outlays made by individuals for food, shelter, and the above four categories are offset by larger outlays for the remaining consumption categories, as well as by heavier outlays for gifts. Clothing expenditures tend to be somewhat higher than those for families up to the $2,500 income level, and reading expenses up to the $10,000 level, while expenses for tobacco are higher for the middle income groups. Recreation expenses, however, run higher for all incomes above $500, and expenses for transportation other than automobiles are higher throughout the income scale. The average single individual is apparently more likely to rely on local transit facilities and less likely to own a pleasure car than the average family at the same income level, except for those in the top income brackets.

Outlays for Gifts and Personal Taxes

Outlays for gifts and personal taxes averaged distinctly more for single individuals than for families at every income level above $500. Table 3 indicates that individuals with incomes between $1,750 and $2,000 transferred 10 percent of their income as gifts and personal taxes, as compared with the 3 percent, shown in table 1, for families in the same income group. Similarly, for the income group $4,000 to $5,000, the outlays for gifts and personal taxes by single individuals averaged 12 percent of income as compared with only 5 percent for families.

What are the reasons for these relatively greater outlays by single individuals? Do they represent heavier payments for income and other personal taxes, or larger contributions to relatives and friends, to religious organizations, or to welfare agencies? Unfortunately, it is not possible to show separate estimates for each of these types of outlay in the individual spending pattern, for comparison with the separate figures presented for families. But consideration of Federal and State income tax laws suggests that differences in the taxes paid by families and by single individuals on incomes of the same size are not sufficient to account for more than a minor part of these differences in outlay. Apparently it is primarily in the amount of income devoted to gifts that single individuals exceed families. And it is probable, of course, that a considerable share of these larger outlays represent contributions to the support of relatives—"money sent home" by sons and daughters who are no longer living with their parents.

Average Expenditures in 1935–36

Table 5 permits a comparison of the average spending pattern of all single individuals in 1935–36 with the average family pattern for the same year.[4] In making such a comparison it is necessary to bear in mind that these average patterns reflect not only the differences in spending habits of individuals and of families, but also a considerable difference in the size of their average incomes in 1935–36.

Thus the average income of the 10,058,000 single individuals was only $1,151 as compared with $1,622 for all family units. Average savings for both groups equalled 10 percent of the average income. Average personal tax outlays were also of the same relative importance, but gifts—in line with the preceding discussion—were a distinctly more important item for single individuals than for families, approximating 7 percent of the average income instead of 3 percent.

Only 81 percent of the average income of single individuals was retained for consumption needs, as compared with nearly 86 percent of the average income of families—$932 as compared with $1,389. Despite the smaller total outlay of single individuals, the average percentage distribution of their expenditures is strikingly similar to that of families. Food accounted for 34 percent of the total consumption expenditures for both the average individual and the average family. Expenditures for shelter—comprising housing, house-

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[4] For discussion of the limited significance of the average spending pattern for all income levels combined, see p. 29 above.

TABLE 5.—*Average disbursements of American families and single individuals, 1935–36*

Category of disbursement[1]	Average disbursements				Percentage of income			Percentage of consumption expenditures		
	Families	Single individuals	All consumer units[2]		Families	Single individuals	All consumer units[2]	Families	Single individuals	All consumer units[2]
			Per consumer unit	Per capita[3]						
Current consumption:										
Food:										
Purchased	$395	$313	$374	$117	24.4	27.2	24.9	28.4	33.6	29.4
Home-produced[4]	72		54	17	4.4		3.6	5.2		4.2
All food	467	313	428	134	28.8	27.2	28.5	33.6	33.6	33.6
Housing:										
Money expense	169	214	181	57	10.4	18.6	12.0	12.2	23.0	14.2
Imputed value[4]	79	7	60	19	4.9	.6	4.0	5.7	.8	4.7
All housing	248	221	241	76	15.3	19.2	16.0	17.9	23.8	18.9
Household operation	162	52	134	42	10.0	4.5	8.9	11.7	5.6	10.6
Clothing	141	112	133	42	8.7	9.7	8.9	10.1	12.0	10.5
Automobile	114	42	96	30	7.0	3.7	6.4	8.2	4.5	7.6
Medical care	64	33	56	18	4.0	2.9	3.7	4.6	3.6	4.4
Recreation	41	43	42	13	2.5	3.7	2.8	2.9	4.5	3.3
Furnishings	47	3	36	11	2.9	.3	2.4	3.4	.3	2.8
Personal care	28	20	26	8	1.7	1.7	1.7	2.0	2.1	2.0
Tobacco	26	21	24	8	1.6	1.8	1.6	1.9	2.3	1.9
Transportation other than auto	16	42	22	7	1.0	3.7	1.5	1.2	4.5	1.7
Reading	13	16	14	4	.8	1.4	.9	.9	1.7	1.1
Education	15	5	13	4	.9	.4	.9	1.1	.5	1.0
Other items	7	9	8	2	.4	.8	.5	.5	1.0	.6
All consumption items	1,389	932	1,273	399	85.6	81.0	84.7	100.0	100.0	100.0
Gifts	45	85	55	17	2.8	7.4	3.7			
Personal taxes[5]	24	18	23	7	1.5	1.5	1.5			
Savings	164	116	151	47	10.1	10.1	10.1			
All items	1,622	1,151	1,502	470	100.0	100.0	100.0			

[1] For explanation of items included in each category, see pp. 93–98.

[2] Includes all families and single individuals, but excludes institutional groups.

[3] Includes all family members (115,966,000 persons), and all single individuals (10,058,000 persons), but excludes residents in institutioual groups (2,000,000 persons).

[4] For methods of imputing money value to home-produced food and to occupancy of owned homes, rented farm homes, and rent-free homes, see pp. 94–95. The figures for home-produced food cover rural families only.

[5] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

hold operation, and furnishings—represented 30 percent of the average expenditures of individuals as compared with 33 percent of the average family expenditures. Transportation costs—including both automobile and other transportation—equalled 9 percent for both groups of consumers. Such differences as appear in the percentage allocation of expenditures to other categories are relatively minor.

The Spending Patterns of Single Men and Single Women

The average spending pattern for single individuals covers both single men and single women, and hence conceals some significant variations in the spending habits of the two groups.

In general, single women tend to save more, and to spend less for current consumption than do single men in the same income class. Less of the income of the single woman goes for food, recreation, tobacco, and automobile expenditures, and somewhat more goes for clothing, personal care, shelter, and "other" transportation.

These, and other variations underlying the combined pattern, are revealed in appendix tables 13A to 18A, which present the separate spending patterns of single men and single women, by income level.

SECTION 3. THE SPENDING PATTERNS OF ALL CONSUMERS

Since families and single individuals tend, in the main, to spend their incomes in much the same way, it is feasible to merge their patterns of spending to secure a broad picture of the consumption habits of all the American people at different income levels.

Such an over-all pattern, however, must omit the two million consumers living in institutions or as members of quasi-institutional groups. Much of the income received by this portion of the population is provided by the institution itself in the form of food, housing, medical care, and other subsistence items, so that the individual residents cannot be considered independent spending units. It would, therefore, be relatively meaningless to calculate average spending patterns for them. The expenditures made by institutional agencies for the maintenance and care of this small group of consumers are presented in a subsequent section of the report.

Average Consumer Expenditures in 1935–36

The combined spending pattern for all of the Nation's 39 million families and single individuals naturally resembles very closely the average family pattern already discussed, inasmuch as families are the predominant type of consuming unit at every income level. For that reason detailed figures on the average expenditures and savings of all consumer units at different income levels have been relegated to Appendix A.[1]

The average pattern per consumer unit for all income levels combined is given in table 5, where it can be compared with the corresponding patterns per family unit and per single individual.[2] These over-all patterns, it must be remembered, are weighted according to the particular income distribution prevailing in 1935–36 and hence are less apt to apply to other years than are the patterns for specific income levels.

Expenditures Per Consumer Unit

The relatively low average income of single individuals naturally results in a smaller total outlay per consumer unit than per family. Thus the average consumer unit in 1935–36 had an income of only $1,502 as compared with $1,622 for the average family. Of this amount, just 10 percent—$151—was saved, while gifts and personal taxes together took about 5 percent, or $78. This left $1,273 for the expenses of current living. More than three-fourths of this amount—$972—went to pay for food, shelter, and clothing. Automobile and other transportation expenses took $118, leaving only $183 to cover all other necessities and luxuries included in the present-day spending pattern of the American consumer.

Expenditures Per Capita

These figures on the average expenditures of the 39,458,300 consumer units in the population are, for some purposes, not as useful as the corresponding figures on per capita expenditures for the 126,024,000 individual consumers covered by the estimates. Accordingly, the per capita consumption pattern is also presented in table 5. The average consumer unit in 1935–36 contained about 3.2 persons, so that the relation between the two sets of figures can be readily seen.[3]

The average per capita income of American consumers in 1935–36 was $470. This figure naturally falls below the estimated average income for single individuals living by themselves or as lodgers since the per capita average includes children and other dependents as well as income-earning adults. For the same reason, the division of the average income among the various classes of goods and services differs from the division shown for single individuals.

Since the per capita spending pattern reflects primarily the consumption habits of family members, it gives more emphasis to those categories that are relatively more important for families than for single individuals. Thus, in the per-capita pattern, shelter—including expenses for housing, household operation, and furnishings—automobile, medical care, and education account for slightly larger percentages of income and of total consumption outlay than in the single individual pattern, while clothing, transportation other than automobile, recreation, tobacco, and reading account for smaller percentages.

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[1] See tables 19A–23A.

[2] For discussion of the limited significance of the average spending patterns for all income levels combined, see p. 29 above.

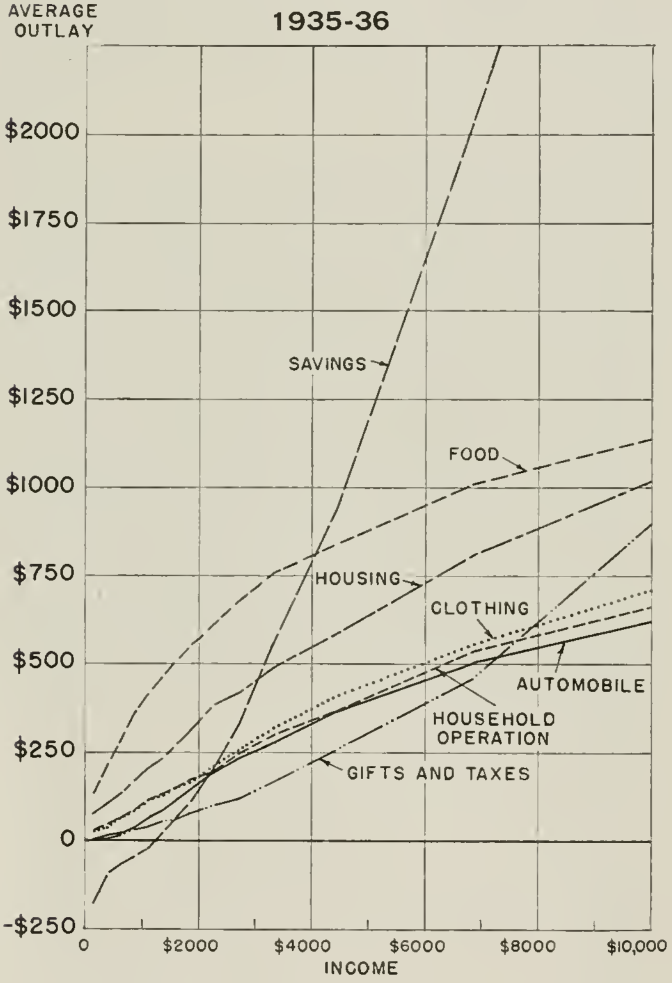
[3] Per capita figures for family members can be obtained by dividing the average figures per family by 3.9, the average number of persons per family, or, more accurately, by dividing the aggregate family disbursements shown in appendix tables 24A, 25A, and 27A by 115,966,000, the total number of family members.

Expenditures in Relation to Income

When we consider the spending patterns of all consumer units at different income levels, we find again, as with the family and individual patterns, that the dollar outlay for every category increases as income advances. Some, however, increase more rapidly than others, and comparisons of the various items in this respect are highly interesting and significant.

AVERAGE OUTLAY OF NATION'S CONSUMER UNITS FOR MAJOR CATEGORIES OF DISBURSEMENT

AT DIFFERENT INCOME LEVELS



BASED ON TABLES 19A AND 20A

CHART 11

NOTE.— Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

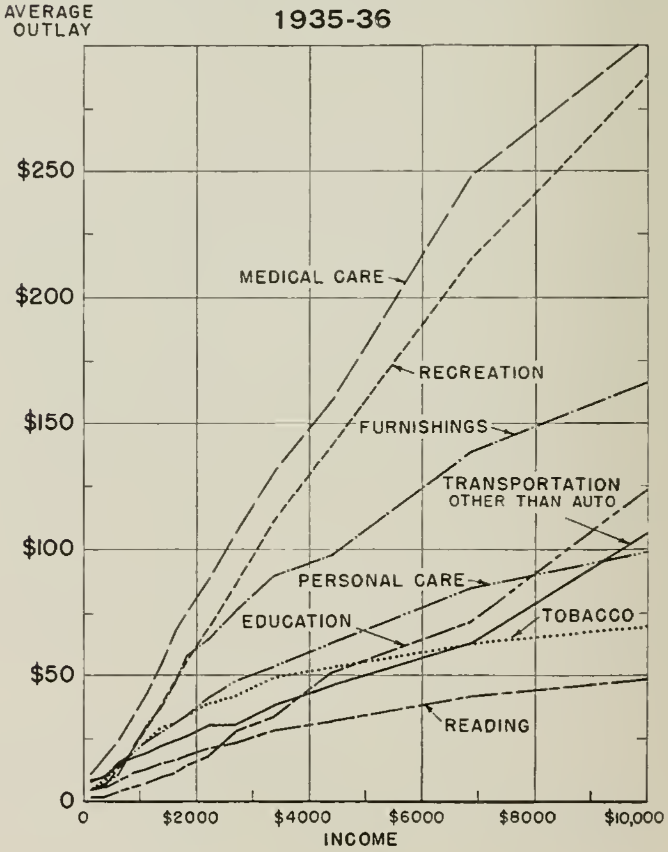
Income-Expenditure Curves

These comparisons are brought out clearly in charts 11 and 12, where the expenditure on each category is shown at all incomes up to $10,000. In chart 11 the savings curve stands out in a striking manner. It is much the steepest of all the curves at incomes above $2,000—that is, it shows the greatest increase in outlay for every additional $100 of income. Also, except at the very low incomes it becomes progressively steeper as income increases; that is, it takes a progressively larger share of each successive increment to income. In technical parlance, it is concave upward.

The curve for gifts and personal taxes is also concave upward, it will be noted, although it shows a much less rapid rise than does the savings curve. All five of the major categories of current consumption, however, have

AVERAGE OUTLAY OF NATION'S CONSUMER UNITS FOR SPECIFIED CATEGORIES OF CONSUMPTION

AT DIFFERENT INCOME LEVELS



BASED ON TABLE 20A

CHART 12

convex curves. That is, the amount of expenditure increases with each increase in income, but the share in each successive income increment steadily diminishes.

The curve for food is most strikingly convex: at the lower incomes it is very steep, showing a considerable increase in expenditure for every $100 increase in income, but it begins to flatten off rapidly in the middle income levels. The housing curve, however, approaches more nearly a straight line, with only a slight falling off in the amount of increase in outlay with each addition to income. The curves for clothing and household operation are almost identical up to $2,000, with clothing somewhat the higher of the two above that point. The automobile curve is particularly interesting: it is concave upward at low incomes and convex at high incomes.

Turning to the smaller categories, which are plotted in chart 12, the curves are somewhat less regular and also less striking. It must be realized that the scale of this chart is approximately seven times as large as that used in chart 11, and that if these eight categories had been shown in the preceding chart they would have appeared as almost horizontal lines, falling for the most part below the $250 level of outlay. On the larger scale, however, it can be readily seen that the education curve is concave upward, which is undoubtedly due to expensive private schooling purchased by high income families. The curve for transportation other than automobile also turns upward in the higher income levels, probably due to expenditures for travel. The graphs for the other categories are all convex, particularly tobacco, personal care, and furnishings. The recreation curve behaves somewhat like that for automobile expenses, although the flattening off at the higher income levels is not so marked; the concavity at very low income levels, while not clearly shown in the chart, is quite definite.

The Order of Urgency of Expenditures

The relation of expenditures to income also gives an indication of the relative dispensability or urgency of the different classes of consumer goods and services. It tells us how, on the average, families and single individuals at different income levels allocate their incomes and thus gives us an indication of how, on the average, they would be likely to adjust to changes in income status.[4] When income is cut by, say, 10 percent, the expenditures which are not cut at all or are cut by less than 10 percent may be designated as the "urgent" expenditures or the "necessities." Consumers, on the average, consider these items so necessary that they prefer to use the axe of economy elsewhere. In the same way, expenditures that are slashed more than proportionately when income is cut are relatively dispensable; viewed in this way, they are "luxuries."

By this definition, it should be noted, the same item may be a "luxury" to a poor man and a "necessity" to a rich man. In charts 11 and 12 the "urgent" or "indispensable" categories at a given income level are those for which the curves are flat at that point relative to their height, for this means that a cut in income will result in a smaller percentage cut in the expenditure on the category. To put it another way, for "indispensable" items the tangent to the curve must intersect the vertical axis above the zero point, while for "dispensable" items the tangent intersects the horizontal axis to the right of the origin. Food and housing are thus "indispensables" at all income levels. Clothing and household operation vacillate between the two classifications, while the automobile is a "dispensable" item up to $3,000, but at that level becomes "indispensable."

Among the smaller categories, medical care and recreation show the difference between "urgent" and "dispensable" items very clearly. The line representing recreation is practically straight for incomes between $500 and $4,000 and when extended downward crosses the horizontal axis to the right of the zero point. Recreation thus falls into the "dispensable" classification except for incomes above $4,000. The line for medical care is also nearly straight,[5] but it would hit the vertical axis if extended downward; hence, it is an "indispensable" item at almost all income levels.

Furnishings pass from the "dispensable" to the "urgent" classification at $2,000. Transportation, on the other hand, moves from the "urgent" to the "dispensable" class above the $5,000 to $10,000 level, but, as already pointed out, this is due to the inclusion of such travel expenses as railroad fares at the higher incomes, in addition to local transportation costs. Education, (that is, expenditures for private tuition and school supplies) although the curve is somewhat irregular, belongs definitely in the "dispensable" category, while tobacco, reading, and personal care are unmistakably "indispensable" at almost all income levels.

It is interesting to notice that above the $5,000 level the only categories of current consumption which fall into the luxury class are education and transportation other than automobile—both relatively minor items. The expenditures of consumers at high incomes do not respond proportionately to changes in income status; in the language of the economist, they are "inelastic."

It should be remembered in interpreting these results that they are averages for the whole Nation and may obscure significant differences among separate groups of consumers. It should also be kept in mind that the numerical importance of different groups of the population is not the same at all income levels. Thus, there are relatively more farm families at low incomes and relatively more urban families at high incomes. Adjacent income levels, therefore, are not identical in population composition, and differences in the average over-all consumption pattern at different income levels are partly ascribable to differences in composition as well as to differences in size of income. An examination of the behavior of consumption patterns in the various component groups of the population, however, makes it clear that the classification of the categories into "indispensable" and "dispensable" items is not seriously affected by this heterogeneity.

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[4] The limitations in the applicability of the 1935–36 patterns to future years must, however, be borne in mind. See pp. 18–19.

[5] There is a relatively sharp rise just above the $1,000 mark which may be due to the transition from free medical care to expenditure out of personal incomes. For further discussion, see pp. 65–66.

It must further be remembered in considering these results that each of the 14 categories of consumption is itself very heterogeneous, covering a varied assortment of goods and services. The response of many of these individual consumption items to changes in income may be quite different from that shown for the group of items as a whole. The behavior of some of these individual items and of various subgroups of items will also be presented in a later report.

Finally, it must be realized that the terms "indispensable" and "dispensable" have been used here in a purely empirical sense and are not to be taken as a measure of whether or not the goods and services are essential to health and efficiency. Thus, as we have seen, tobacco is "indispensable" in the sense that expenditures on it are not highly responsive to changes in income, while at the same time it would usually be classified from the physiological standpoint as a "dispensable" item.

Expenditures of the Three Thirds of the Nation

It is convenient, as a final summing up of the differences in the consumption patterns of various income groups, to examine the average spending pattern for each third of the Nation's 39 million consumer units.[6] As was indicated in the previous report on the distribution of consumer incomes in 1935–36, the 13 million families and single individuals in the lower third of the Nation all received incomes of less than $780. The middle third had incomes between $780 and $1,450, and the upper third incomes of $1,450 and over.[7]

Average incomes within these three groups of the population were $471, $1,076, and $2,959, respectively. How were these incomes spent? How much was used for meeting current living expenses? How much was devoted to gifts and to certain personal taxes? How much was retained as savings? Answers to these questions are given in chart 13 and table 6.

Negative Savings of the Lower and Middle Thirds

It is immediately clear from chart 13 that neither the lower nor the middle income group had an average income sufficient to cover the average outlays for current consumption plus gifts and personal taxes. Not only was there nothing left for savings; there were average deficits for the year, amounting to $92 for families and single individuals in the lower third of the Nation and to $19 for those in the middle third. Consumer units in the upper third of the Nation had average savings of $566—19 percent of income—after all outlays for current consumption, gifts and taxes were cared for.

It must be emphasized again that these average figures serve merely to summarize the expenditures of the families and single individuals in each group. They do not, of course, mean that all the 26 million consumer units with incomes below $1,450 spent more than they received during the year, but that for the group as a whole, deficits were greater than savings. Similarly, they do not imply that all those with incomes above $1,450 accumulated savings, but that the deficits in-

TABLE 6.—*Average disbursements of consumer units [1] in each third of Nation, 1935–36*

Category of disbursement [2]	Average disbursements of families and single individuals in—			Percentage of income		
	Lower third, incomes under $780	Middle third, incomes of $780 to $1,450	Upper third, incomes of $1,450 and over	Lower third	Middle third	Upper third
Current consumption:						
Food	$236	$404	$642	50.2	37.5	21.7
Housing	115	199	408	24.4	18.5	13.8
Household operation	54	108	240	11.4	10.0	8.1
Clothing	47	102	251	10.0	9.5	8.5
Automobile	16	57	215	3.3	5.3	7.2
Medical care	20	41	106	4.3	3.9	3.6
Recreation	9	28	89	1.8	2.6	3.0
Furnishings	9	28	72	1.8	2.6	2.4
Personal care	12	22	44	2.5	2.1	1.5
Tobacco	10	23	40	2.2	2.1	1.4
Transportation other than auto	11	19	37	2.4	1.7	1.3
Reading	6	12	23	1.3	1.2	.8
Education	2	7	30	.5	.6	1.0
Other items	3	6	15	.6	.5	.5
All consumption items	550	1,056	2,212	116.7	98.1	74.8
Gifts and personal taxes [3]	13	39	181	2.8	3.7	6.1
Savings	−92	−19	566	−19.5	−1.8	19.1
All items	471	1,076	2,959	100.0	100.0	100.0

[1] Includes all families and single individuals, but excludes residents in institutiona groups.
[2] For explanation of items included in each category, see pp. 93-98.
[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

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[6] The average disbursements of each quarter of the Nation's consumer units are presented in table 23A. Averages for each half of the Nation can readily be obtained from these quartile figures.

[7] See *Consumer Incomes in the United States*, pp. 7–11, and table 3B, p. 95.

curred by part of the group were more than offset by the savings made by others.[8]

Current Living Expenses

The average living expenses of the three thirds of the Nation entailed total outlays of $550, $1,056, and $2,212, respectively. When we examine the actual amounts allocated by each third to food, housing, clothing, and other necessities and comforts of living, we can gain some idea of the comparative planes of living enjoyed by these three broad groups of the Nation's consumers.

Food.—The 13 million families and single individuals in the lower third paid out, on the average, more than half their incomes for food, yet the average value of food consumed by them was only $236, as contrasted with $404 for those in the middle third and $642 for those in the upper third.

In terms of per capita expenditure, the lower third spent about $82 for food during the year, or $1.60 per week; the middle third averaged about $125 for the year, or $2.40 per week; while the upper third averaged $186, or $3.60 per week.[9]

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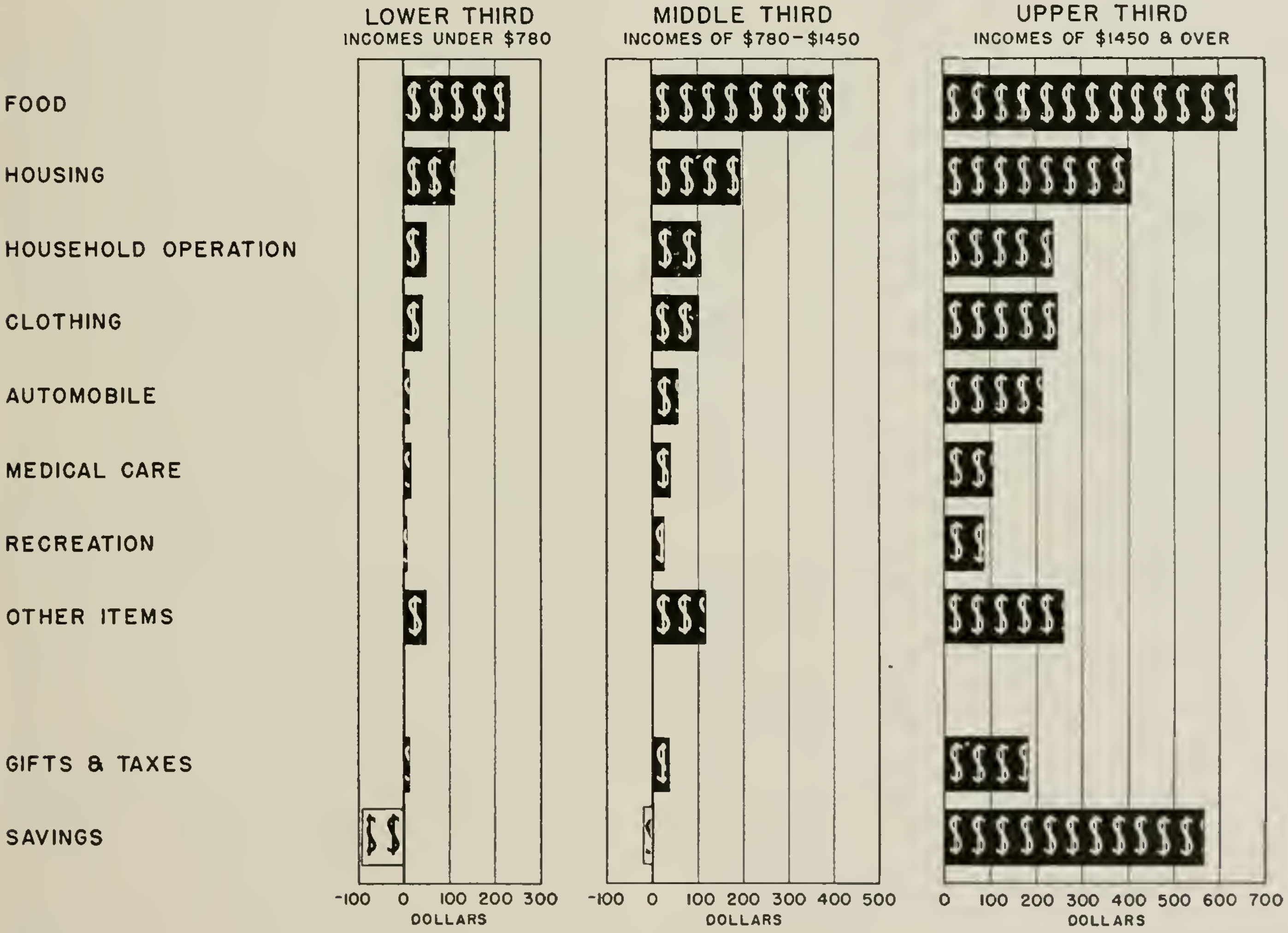
[8] See p. 20, footnote 22.

[9] In estimating these per capita expenditures, allowance has been made for the fact that the lower third of the Nation's 39,458,300 consumer units included somewhat less than an exact third of the 126,024,000 consumers, while the middle and the upper thirds each included somewhat more than one-third of all consumers. These differences are due, of course, to differences in the proportions of single individuals and of small and large families in the three income groups. Thus the average number of persons per consumer unit was approximately 2.9 in the lower third, 3.2 in the middle third, and 3.5 in the upper third. For further discussion, see Appendix B, p. 152.

AVERAGE DISBURSEMENTS OF FAMILIES AND SINGLE INDIVIDUALS IN EACH THIRD OF NATION

1935-36



BASED ON TABLE 6

CHART 13

Each dollar symbol represents $50 of average disbursements.

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

Clothing.—For clothing expenses, the lower income group spent on the average $47 for the year, or $16 per person. This outlay, it will be recalled, covered all articles of wearing apparel purchased—from overcoats to bathing suits, hats to shoes, handkerchiefs to pocketbooks—as well as shoe repairs and other "upkeep" costs. For the middle income group, average clothing expenses amounted to $102 for the year, or $32 per person, and for the upper group to $251, or $73 per person.

Shelter.—Turning to the average outlay for housing, we find that the lower third of the Nation spent $115 per consumer unit for the year—somewhat less than $10 per month. Even this outlay absorbed nearly one-fourth (24 percent) of the average income. The middle third spent $199 for the year, or about $17 per month for housing, and the upper third $408 for the year, or $34 per month. When expenses for household operation and furnishings are added to these figures, the total cost of shelter for the three groups amounted to $15, $28, and $60 per month, respectively.

Other Living Expenses.—Considering all food, clothing, and shelter expenditures together, we find that they accounted for more than four-fifths of the average living expenses of the poorest group of consumers, totalling $461. Only $89 was left—about $31 per person for the year—to cover all other consumption items.

Medical care took the largest share of this outlay, requiring $20 per consumer unit—about $7 per person—for the year. Automobile expenses came next, averaging $16 for the year, and streetcar fares and other transportation expenses claimed an additional $11. About $12 on the average was spent by the families and single individuals in this group on haircuts, shaves, tooth paste, combs, and other items of personal care; about $10 for cigarettes, cigars, and other smokers' supplies; another $9 for movies and other recreational expenses; $6 for newspapers, magazines, books, and library fees; and $5 for education and other items.

The middle third of the Nation's consumers also made four-fifths of their total consumption expenditures for the three basic needs of food, shelter, and clothing. But they had more than twice as much as the lower third to spend for all other living expenses—$215, on the average, or $67 per person for the year. Automobile and recreation expenses took somewhat larger shares of this average outlay, but for the most part the division of expenditures was similar to that of the poorest group.

When we turn to the upper third, we still find the bulk of all living expenses—about three-fourths of average consumption expenditures—allocated to food, shelter, and clothing. The amount available for all other necessities and comforts of living averages about $600, or $173 per person, for the year. Again, automobile and recreational expenditures gain in importance, and expenditures for education increase more than fourfold over those of the middle income group.

These figures for the upper third of the Nation, it must be remembered, summarize the expenditures of families and individuals with incomes ranging all the way from $1,450 to the very top of the income scale. Thus the average outlays cover an enormous variation in actual expenditures, and are far less representative of the 13 million consumer units in the group than are the averages for the middle and lower thirds. The incomes of the middle group varied less than $700, while those of the upper third varied by more than a million dollars. Less than 3 million out of the 13 million families and single individuals in the upper third had incomes above the average income of the group—$2,959—but the expenditures of this top 7 percent of the Nation were far more diverse than those of the other 93 percent combined.

Gifts and Personal Taxes of the Three Groups

When we consider the figures on gifts and direct personal taxes for each of the three income groups, we find that even the lower third used 3 percent of income, on the average, for these purposes, although the actual dollar outlay averaged only $13. For families in this poorest group, and probably also for single individuals, most of this amount was contributed as gifts to church and to relatives or friends.[10] The proportion of income transferred as gifts and personal taxes by the middle income group was about 4 percent, on the average, with taxes still a minor item; the upper group devoted about 6 percent of average income to these purposes, with personal taxes claiming an important share of the outlay.

A Concluding Remark

In the picture of American standards of living presented in the above pages, no attempt has been made to appraise the money expenditures made by different income groups in terms of the adequacy of the food, housing, and other goods and services consumed. Such an appraisal will be made in a later report, where differences in the cost of an adequate standard of living for families of different sizes living in different localities can be taken into account. Yet even from these dollar-and-cents figures it becomes unmistakably clear that the level of living maintained by the entire lower third of the Nation falls below the minimum requirements for healthful and decent living, and that few even of the middle third are able to enjoy what is customarily called an "American" standard of living. There is plainly urgent need for improvement in the purchasing power of more than half of the Nation's consumers, and ample room for a substantial expansion of the American consumer market.

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[10] See pp. 29 and 35, and table 10A.

PART II

NATIONAL CONSUMPTION IN 1935-36

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SECTION 1. THE AMERICAN CONSUMER MARKET

We have discovered, in the preceding pages, what family and individual incomes mean in terms of personal consumption at different income levels. Now we are concerned with national consumption. What did the Nation as a whole consume in 1935–36? How much—how many millions or billions of dollars—did the American people, considered as one tremendous consuming unit, spend for food? For automobiles? For medical care? For the other major classes of consumer goods and services? How much of their combined incomes did they pay out in gifts and direct personal taxes? How much did they save?

The uses of such national consumption aggregates are manifold. They afford a cross-section view of our real national income—the value of goods and services actually utilized by the consuming public. They indicate the end products of our economic activity—ultimate consumption goods as distinct from intermediate and producers' goods. They show us how national purchasing power—the total consumer dollar—is divided between spending and saving, and how spending is allocated among the various consumption demands. They delineate the existing domestic market for consumer goods and services—and thereby serve as guides to production and sales policies, as well as guides to more fundamental long-range programs on the part of business and Government.

Total national consumption is the sum of all consumer outlays made during the course of a year.[1] The bulk of this consumption is made up of the expenditures of families and single individuals, since they comprised more than 98 percent of the total population in 1935–36, and controlled 99 percent of the total consumer income.

It is of first importance, therefore, to ascertain the aggregate outlays of these 126 million consumers. This can be done, readily enough, from the average consumption patterns of the major groups of families and of single men and women mentioned in part I above. It is necessary only to multiply the pattern for each homogeneous group of consumer units at each income level by the number of such units falling within the income level, and then to sum the totals for each item of outlay. The resulting aggregates for all families and single individuals, which approximate total consumption for the Nation as a whole, are analyzed in detail in this part of the report.

The aggregates for all families and single individuals fall short of a grand total of all consumer expenditures and savings in the United States in two respects. First, they omit the consumption of the two million persons who are collectively supported in institutions, or belong to quasi-institutional groups such as the Civilian Conservation Corps, Army and Navy posts, and crews on vessels. The consumption data available for this minor segment of the population are not comparable with the data for families and single individuals, and separate estimates must therefore be made of their share in national consumption. Such estimates are presented toward the end of part II.

A second addition that must be made to complete the national picture, and one most difficult to estimate in dollar terms, is the value of services provided to the consuming public by Government agencies or nonprofit private organizations. Because of the difficulty of allocating the benefits derived from such socially-financed consumption items as public education, free medical care, and the use of public playgrounds and libraries, they have been omitted entirely from the consumption patterns of families and single individuals. Yet they obviously contribute to the sum total of consumer goods and services, and must be considered a part of any comprehensive estimate of national consumption. Some indication of the magnitude of the Nation's expenditures for these items is therefore included in the discussion below.

In the last section of part II, the national consumption aggregates for families and single individuals are compared with national consumption estimates available for previous years, most of which have been built up from industrial data on the production and distribution of consumer goods and services. Such comparisons offer a useful and significant check on the reliability of the national estimates presented.

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[1] As has been noted above, the estimates of consumer outlays include some items which necessarily have been counted twice. See p. 2, footnote 5.

Total Expenditures for Current Consumption

The combined incomes of the 39 million families and single individuals who constitute the bulk of the American consumer market amounted to a little over $59 billion in 1935–36. We have already seen, from the average consumption pattern in table 5, that 85 percent of this income was spent for current consumption purposes, with the remaining 15 percent saved or paid out as gifts or personal taxes.[2] Let us consider first how consumers allocated their $50 billion expenditures for current consumption.

TABLE 7.—*Aggregate disbursements of American consumers,*[1] *1935–36*

Category of disbursement [2]	Aggregate disbursements (in millions)	Percentage of—		Percentage of aggregate disbursement for each category made by—	
		Total consumer income	Total consumption expenditures	Families	Single individuals
Current consumption:					
Food:					
Purchased	$14, 753	24. 9	29. 4	78. 6	21. 4
Home-produced [3]	2, 112	3. 6	4. 2	100. 0	
All food	16, 865	28. 5	33. 6	81. 3	18. 7
Housing:					
Money expense	7, 125	12. 0	14. 2	69. 9	30. 1
Imputed value [3]	2, 381	4. 0	4. 7	97. 0	3. 0
All housing	9, 506	16. 0	18. 9	76. 7	23. 3
Household operation	5, 285	8. 9	10. 6	90. 1	9. 9
Clothing	5, 261	8. 9	10. 5	78. 6	21. 4
Automobile	3, 781	6. 4	7. 6	88. 7	11. 3
Medical care	2, 205	3. 7	4. 4	84. 9	15. 1
Recreation	1, 643	2. 8	3. 3	74. 0	26. 0
Furnishings	1, 422	2. 4	2. 8	97. 7	2. 3
Personal care	1, 032	1. 7	2. 0	80. 5	19. 5
Tobacco	966	1. 6	1. 9	78. 2	21. 8
Transportation other than auto	884	1. 5	1. 7	52. 4	47. 6
Reading	551	. 9	1. 1	70. 4	29. 6
Education	506	. 9	1. 0	89. 3	10. 7
Other items	307	. 5	. 6	71. 7	28. 3
All consumption items	50, 214	84. 7	100. 0	81. 3	18. 7
Gifts	2, 178	3. 7		60. 8	39. 2
Personal taxes [4]	889	1. 5		79. 2	20. 8
Savings	5, 978	10. 1		80. 4	19. 6
All items	59, 259	100. 0		80. 5	19. 5

[1] Includes all family members (115,966,000 persons) and all single individual (10,058,000 persons) but excludes residents in institutional groups (2,000,000 persons).

[2] For explanation of items included in each category, see pp. 93–98.

[3] For methods of imputing money value to home-produced food and to occupancy of owned homes, rented farm homes, and rent-free homes, see p. 94–95. The figures for home-produced food cover rural families only.

[4] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

The relative magnitude of disbursements for each important group of consumption items has already been shown by the bars in chart 1 above. Amounts expended for each category of consumption, and the percentage of the total expenditures made by families and by single individuals, are shown in table 7.

Food claimed by far the largest share of the $50 billion outlay. It accounted for almost $17 billion—34 percent of the consumption expenditures and 29 percent of the total consumer income. Nearly $15 billion of this amount represents purchases of food through stores and restaurants.[3] The other $2 billion was the imputed value of home-produced food raised and consumed by families living in rural communities. Home-produced food consumed by urban families and by single individuals, as indicated above, was small in amount and is not included in the estimates.[4]

Housing came next to food in order of total outlay. More than $9.5 billion—16 percent of the aggregate consumer income—was allocated to this category of expenditure. Over $7.1 billion of this amount was money expenditures for rent, for the maintenance and repair of owned homes, and for lodging while traveling or living away from home. Included also is the value of heat, light, and refrigeration supplied to families whose regular rent payments covered these services. The other $2.4 billion is the value imputed to the occupancy of owned homes, of homes on rented farms and of rent-free homes during 1935–36. Such housing values were estimated for both rural and urban families and for single individuals.[5]

Household operation ranked next to housing in aggregate disbursements, although it absorbed less than 9 percent of the total consumer income in 1935–36. Fuel, light, and refrigeration (except when included in rent), paid household service, laundry, and telephone are the major items of expense included in the $5.3 billion for this category.

A minor imputed item, the value of fuel and ice consumed by farm families without direct money expense, occurs in this category; it aggregated about $200 million.

Furniture, equipment, and other household furnishings accounted for an outlay of $1.4 billion, bringing the total expenditures for shelter and home maintenance to $16.2 billion—over 32 percent of total consumptive disbursements and over 27 percent of total income. This was almost equal to the total amount spent for food.

The national clothing bill in 1935–36 was only slightly less than that for household operation—$5¼ billion. This included sums spent for dry-cleaning and repair of clothing and for jewelry, but did not include cosmetics, barbers' services, or other expenses for personal care.

Summing the above totals, we find that three principal consumer wants—food, shelter, and clothing—

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[2] The figures presented in the report on percentage use of income and percentage allocation of expenditures apply, of course, to both the average and the aggregate disbursement figures at the several income levels. See tables 5 and 7.

[3] For explanation of items included in purchased food, see Appendix B, p. 147.

[4] See p. 24 and Appendix B, p. 94.

[5] See p. 24 and Appendix B, p. 143.

accounted for $38 billion—over three-fourths of the Nation's expenditures for current consumption, and nearly two-thirds of the aggregate consumer income in 1935–36.

The remaining $12 billion spent by families and single individuals for current consumption items was divided among nine major categories of expenditure. Automobile expenses—covering the purchase of cars as well as their operation—accounted for $3.8 billion, almost a third of this $12 billion. Over $2.2 billion was paid out for medical care, including doctors', dentists', and hospital bills, drugs and medical supplies, as well as accident and health insurance.[6] Expenditures for recreation and for personal care were next in importance, totaling a little over $1.6 billion and $1 billion, respectively.

Four minor groups of items—tobacco,[6a] transportation other than automobile, reading, and education—ranged in amount from nearly $1 billion to $500 million each. Miscellaneous items, making up the last category of consumption expenditures, accounted for the remaining $300 million.

Division of Total Expenditures by Income Level

Important as it is to know how much all consumers spent for a given category of goods and services, it is just as important to discover how these expenditures were divided among various economic and social groups. Existing statistical data on retail distribution and sales provide a general guide to the national market for consumer goods and services, but they offer few clues

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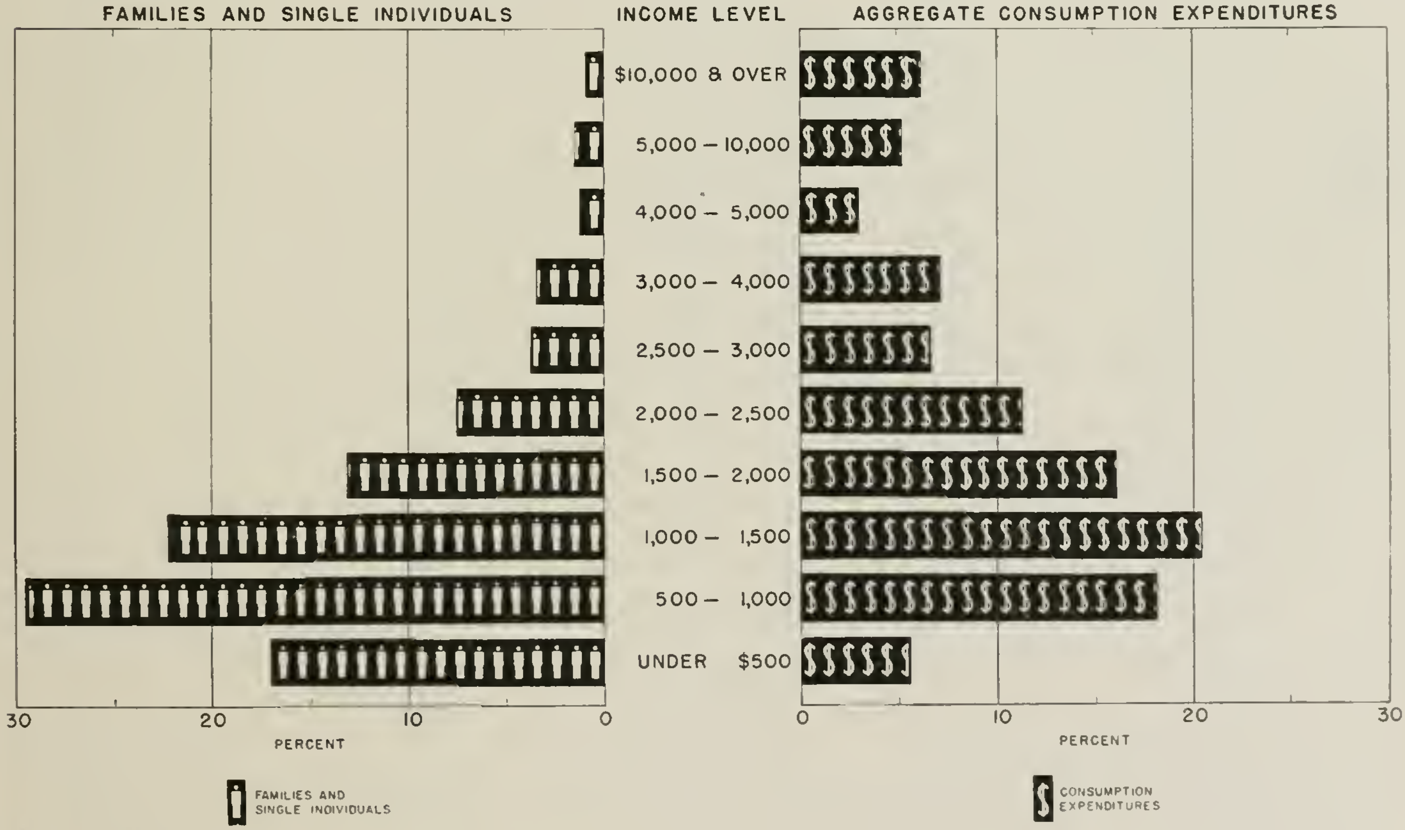
[6] This figure compares fairly closely with an estimate of $2.6 billion aggregate private disbursements for medical care for the year 1936. See Reed, Louis S., *Health Insurance: The Next Step in Social Security*, Harper & Brothers, 1937, p. 19.

[6a] Evidence based upon data for taxes collected on tobacco (see United States Treasury Department Annual Report of the Commissioner of Internal Revenue, Fiscal Year Ended June 30, 1936) indicates that the National Resources Committee estimate of $966 million for tobacco may be somewhat too low. It is very possible that consumers tend to underestimate their expenditures for this item.

DISTRIBUTION OF CONSUMERS AND CONSUMPTION EXPENDITURES

BY INCOME LEVEL

1935 — 36



BASED ON TABLE 8

Chart 14

Each figure symbol represents 1 percent of all families and single individuals.
Each dollar symbol represents 1 percent of aggregate consumption expenditures.

TABLE 8.—*Aggregate outlay of American consumers* [1] *for consumption, gifts and personal taxes, and savings,*[2] *by income level, 1935–36*

Income level	Families and single individuals		Aggregate income		Aggregate outlay for— Current consumption		Gifts and personal taxes [3]		Savings	
	Number	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Under $500	6, 710, 911	17. 0	$2, 061	3. 5	$2, 817	5. 6	$44	1. 4	−$800	−13. 4
$500–$750	5, 771, 960	14. 6	3, 615	6. 1	3, 888	7. 8	109	3. 6	−382	−6. 4
$750–$1,000	5, 876, 078	14. 9	5, 130	8. 6	5, 209	10. 4	175	5. 7	−254	−4. 3
$1,000–$1,250	4, 990, 995	12. 7	5, 589	9. 4	5, 487	10. 9	199	6. 5	−97	−1. 6
$1,250–$1,500	3, 743, 428	9. 5	5, 109	8. 6	4, 807	9. 6	207	6. 7	95	1. 6
$1,500–$1,750	2, 889, 904	7. 3	4, 661	7. 9	4, 278	8. 5	187	6. 1	196	3. 3
$1,750–$2,000	2, 296, 022	5. 8	4, 214	7. 1	3, 794	7. 6	175	5. 7	245	4. 1
$2,000–$2,500	2, 958, 611	7. 5	6, 572	11. 1	5, 695	11. 3	290	9. 4	587	9. 8
$2,500–$3,000	1, 475, 474	3. 7	4, 005	6. 8	3, 348	6. 7	175	5. 7	482	8. 1
$3,000–$4,000	1, 354, 078	3. 4	4, 599	7. 8	3, 631	7. 2	226	7. 4	742	12. 4
$4,000–$5,000	464, 191	1. 2	2, 045	3. 4	1, 494	3. 0	117	3. 8	434	7. 2
$5,000–$10,000	595, 908	1. 5	4, 092	6. 9	2, 604	5. 2	270	8. 8	1, 218	20. 4
$10,000–$15,000	152, 682	. 4	1, 747	3. 0	925	1. 8	143	4. 7	679	11. 4
$15,000–$20,000	67, 923	. 2	1, 175	2. 0	607	1. 2	95	3. 1	473	7. 9
$20,000 and over	110, 135	. 3	4, 645	7. 8	1, 630	3. 2	655	21. 4	2, 360	39. 5
All levels	39, 458, 300	100. 0	59, 259	100. 0	50, 214	100. 0	3, 067	100. 0	5, 978	100. 0

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 9.—*Percentage of aggregate expenditures made by American consumers* [1] *at different income levels for main categories of consumption,*[2] *1935–36*

Income level	Percentage of families and single individuals	Percentage of aggregate expenditures for— All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $1,000	46. 5	23. 8	29. 6	25. 4	22. 2	20. 2	10. 6	19. 9	13. 4	15. 5	24. 7	24. 4	27. 1	25. 5	10. 7	19. 5
$1,000–$2,000	35. 3	36. 6	38. 8	35. 9	35. 7	34. 7	33. 9	35. 4	33. 6	39. 1	37. 1	40. 6	34. 5	38. 1	26. 2	35. 2
$2,000–$3,000	11. 2	18. 0	16. 4	17. 3	17. 8	18. 8	23. 6	19. 0	20. 2	21. 3	18. 4	18. 4	15. 1	17. 6	19. 0	18. 6
$3,000–$5,000	4. 6	10. 2	8. 3	9. 8	10. 8	11. 7	14. 4	11. 4	13. 2	11. 8	9. 8	9. 4	8. 3	9. 6	14. 1	10. 8
$5,000 and over	2. 4	11. 4	6. 9	11. 6	13. 5	14. 6	17. 5	14. 3	19. 6	12. 3	10. 0	7. 2	15. 0	9. 2	30. 0	15. 9
All levels	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

to the distribution of consumer demand among income groups. Particular value is attached, therefore, to the division of aggregate consumer expenditures shown in chart 14 and, in more detail, in tables 8 and 9.

Relative Shares of Different Income Groups

The proportion of aggregate expenditures made at a given income level depends, of course, on the number of consumer units as well as on the average consumption pattern at that level. Hence to understand the aggregate outlay figures shown in chart 14, it is necessary to consider them in relation to the distribution of consumer units by income level.

In the income classes below $500, we find almost 7 million families and single individuals—17 percent of all consumer units—expending only 6 percent of the aggregate national outlay for current consumption. This is not quite as large a proportion of the national aggregate as was expended by the nine-tenths of 1 percent of consumer units at the top of the income scale—the 331,000 whose incomes were $10,000 and over.

Families and single individuals with incomes under $1,000 numbered almost half (47 percent) of all consumer units in 1935–36, but their aggregate outlay for consumption goods and services was only a fourth (24 percent) of the national total. Families and single individuals with incomes between $1,000 and $1,500 made up 22 percent of all consumer units and expended nearly 21 percent of the aggregate for current consumption items. This was a larger percent of the total than was expended by consumers in any of the other $500 intervals. The wider income range from $1,500 to $2,500 contained somewhat fewer consumer units (21 percent) but the higher average expenditures resulted in a larger aggregate outlay, approximating 27 percent of the national consumption total.

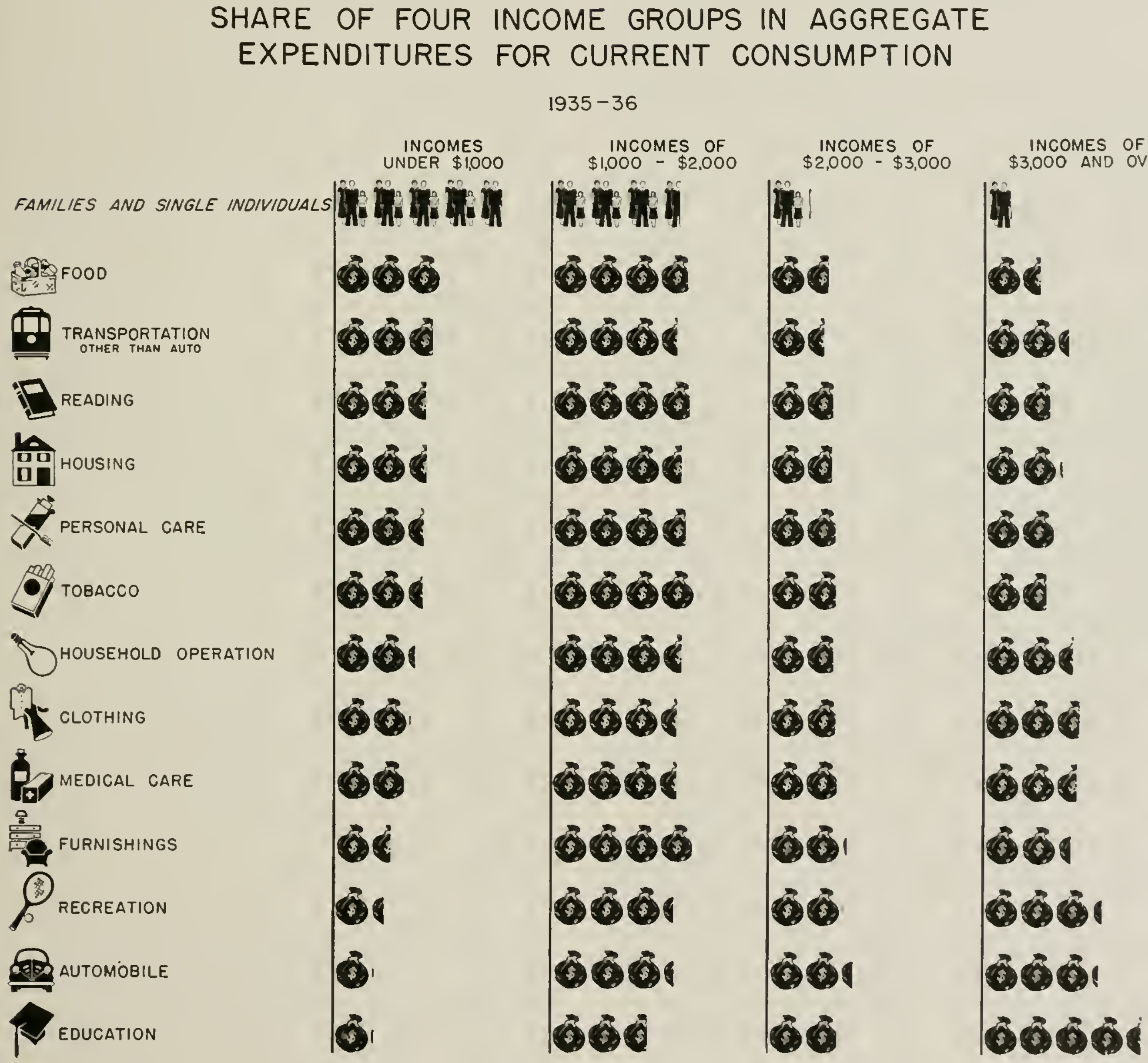
The eight percent of consumer units with incomes from $2,500 to $5,000 contributed 17 percent of the national outlay, while the upper 2½ percent—those with incomes of $5,000 and over—were responsible for more than 11 percent of all consumption expenditures in 1935–36.

Expenditures in Excess of Income

It should be observed that aggregate consumption expenditures at the low income levels exceeded the aggregate income received—as was to be anticipated from the preceding discussion of average patterns of spending. These "negative savings" appear in chart 2 above, and again in chart 16 for combined income levels. As the figures for the finer income intervals shown in table 8 indicate, the excess of consumption outlays over current income continued up to $1,250. Thus the 59 percent of all families and individuals with incomes below $1,250 spent $17 billion for current living expenses—35 percent of the total outlay—although they received only $16.4 billion in current income—less than 28 percent of the total income.

Expenditures for Different Classes of Goods and Services

The proportion of aggregate expenditures made by various income groups varies significantly from one


SHARE OF FOUR INCOME GROUPS IN AGGREGATE EXPENDITURES FOR CURRENT CONSUMPTION

1935–36

BASED ON TABLE 9

CHART 15

Each figure symbol represents 10 percent of all families and single individuals.
Each bag symbol represents 10 percent of total expenditure on specified category of consumption.

class of consumption items to another. The lower income groups contribute relatively more of the aggregate expenditures for such necessities as food and housing than of the expenditures for the less essential items. Consumers with higher incomes account for more than a proportionate share of the aggregate expenditures for every category of consumption, but they share most heavily in expenditures for such categories as education, recreation, and automobiles.

These generalizations are based on chart 15, which divides the aggregate expenditures for each important class of consumer goods and services among four broad levels of income.[7] Table 9 shows the percentage division of disbursements for each category of consumption among five income classes.

The 47 percent of families and single individuals with incomes of less than $1,000 accounted for 30 percent of all food expenditures and 25 percent of housing expenditures. Only 11 percent of the automobile and educational expenditures came from these income groups, and only 13 percent of the recreation expenditures.

If we consider all income classes below $2,000, we find more than four-fifths of all consumer units (82 percent) contributing two-thirds (68 percent) of the food expenditures and three-fifths (61 percent) of the housing expenditures of the Nation. Yet their education expenditures represent little more than a third of the national total, their automobile expenditures only 45 percent, and their recreation expenditures 47 percent. If it were possible to apportion the value of socially-financed education and recreation services by income level, we would, of course, find the lower-income groups sharing more liberally in these categories of consumption.[8]

At the other end of the income scale, the groups with incomes of $3,000 and over contain only 7 percent of all consumer units, yet they make 44 percent of the outlays for education and from 33 to 26 percent of the outlays for recreation, automobile, clothing, and medical care. Their expenditures for food and housing, on the other hand, total only 15 and 21 percent, respectively, of the national outlay.

Expenditures for transportation other than automobile, it is interesting to note, run high both at the high and at the low income levels, with a relatively smaller proportion in the intermediate levels. This variation, as indicated earlier in the discussion, reflects the importance of travel expenses supplementing the automobile expenses of the well-to-do groups, and of carfares and other local transportation expenses substituting for automobile expense among the poorer groups.

The Share of Each Tenth of the Nation

A somewhat clearer picture of the way different income classes share in the national consumption is obtained when we classify all consumer units into groups of equal size, so that the comparison of total expenditures by different groups is not confused by the varying numbers of units per group. Such a classification has already been shown in chart 4 above, in which the Nation's consumer units are divided into tenths (called deciles) according to their income status. The shares of each decile in the aggregate outlays for current consumption, for savings, and for gifts and personal taxes can thus be readily compared.[9] The exact figures on which the chart is based are shown in table 10.

The 3.9 million families and single individuals in the lowest tenth of the Nation—those with incomes under $340—consumed only 3 percent of the total value of consumption goods and services in 1935–36. Those in the second tenth enjoyed a slightly larger share of the national consumption, but their current consumption outlays aggregated only $2 billion—4 percent of the $50 billion total.

The highest tenth of consumer units shared far more liberally in current consumption than any of the intermediate groups, accounting for more than a fourth (27 percent) of the aggregate national outlay. Consumption expenditures of this tenth, composed of families and single individuals with incomes of $2,600 and over, were almost twice as great as the consumption expenditures of the next highest tenth, and nine times as great as those of the poorest tenth of consumer units—$13.5 billion as compared with $1.5 billion.[10]

Table 10 calls attention once again to the fact that current consumption expenditures of the lower income groups exceed their aggregate incomes. These negative savings, combined with the large positive savings of the higher income groups, make the share of the poorer groups in national consumption somewhat greater than their share in national income. It should be noted, however, that it is not until the seventh decile

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[7] Detailed figures for the finer income intervals are presented in Appendix A, both for all consumer units and for families and single individuals separately.

[8] For discussion, see pp. 65–66.

[9] For discussion of share of each tenth of the Nation in savings and in gifts and personal taxes, see pp. 54–55 and 59.

[10] This comparison does not reflect the full extent of the inequality of consumption expenditures among consumer units. In order to make such a comparison, it would be necessary to classify families and single individuals according to their total expenditure instead of according to their income—a procedure not possible with the available data. The tenth of consumer units having the greatest expenditures must of necessity have spent more than a tenth selected by any other basis of grouping, and hence more than the $13.5 billion spent by the tenth with highest income. Similarly, the tenth having the smallest expenditures must have spent less than the $1.5 billion spent by the tenth with the lowest incomes. The ratio of the expenditures of the tenth with the greatest expenditures to those of the tenth with the smallest expenditures, therefore, was certainly greater than 9 to 1, but how much greater it is impossible to say. However, it was undoubtedly less than 21 to 1, the ratio of the incomes of the highest tenth to the incomes of the lowest tenth.

Table 10.—*Share of each tenth of Nation's consumer units*[1] *in aggregate outlay for consumption, gifts and personal taxes, and savings,*[2] *1935–36*

Proportion of families and single individuals	Income range	Aggregate income		Aggregate outlay (in millions)			Percentage of aggregate outlay		
		Amount (in millions)	Percent	Current consumption	Gifts and personal taxes [3]	Savings	Current consumption	Gifts and personal taxes [3]	Savings
Highest tenth	$2,600 and over	$21, 452	36. 2	$13, 523	$1, 644	$6, 285	26. 9	53. 6	105. 1
Ninth	$1,925–$2,600	8, 593	14. 5	7, 460	376	757	14. 9	12. 2	12. 7
Eighth	$1,540–$1,925	6, 815	11. 5	6, 201	278	336	12. 3	9. 1	5. 6
Seventh	$1,275–$1,540	5, 511	9. 3	5, 165	223	123	10. 3	7. 3	2. 1
Sixth	$1,070–$1,275	4, 444	7. 5	4, 343	160	−59	8. 6	5. 2	−1. 0
Fifth	$880–$1,070	3, 911	6. 6	3, 916	136	−141	7. 8	4. 4	−2. 3
Fourth	$720–$880	3, 259	5. 5	3, 333	109	−183	6. 6	3. 6	−3. 1
Third	$545–$720	2, 548	4. 3	2, 740	77	−269	6. 5	2. 5	−4. 5
Second	$340–$545	1, 719	2. 9	1, 999	40	−320	4. 0	1. 3	−5. 4
Lowest tenth	Under $340	1, 007	1. 7	1, 534	24	−551	3. 1	. 8	−9. 2
Total		59, 259	100. 0	50, 214	3, 067	5, 978	100. 0	100. 0	100. 0

[1] Includes all families and single individuals, but excludes residents in institutional groups.
[2] For explanation of items included in each category, see pp. 93–98.
[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

is reached that the proportion of aggregate expenditures is equal to the proportion of consumer units. The 10 percent of consumer units in this group—those with incomes ranging from $1,275 to $1,540—accounted for just over 10 percent of the total consumption expenditures in 1935–36.

The Share of Each Third of the Nation

For a somewhat simpler analysis, let us combine the various income classes into three broad groups of equal size—the upper, middle, and lower thirds of the Nation identified in the preceding section of the report.[11] We have already examined the average expenditure patterns of consumer units in each of these groups in 1935–36. Our present interest is the share of each third in the Nation's total consumption, and in the expenditures for each class of goods and services.

This summary picture of national consumption is shown in chart 3 above and in table 11. The lower third, the 13 million families and single individuals with incomes under $780, consumed goods and services valued at $7.2 billion—14 percent of the aggregate consumption of $50 billion. The middle third, with incomes between $780 and $1,450, consumed almost 28 percent of the national total. The upper third, with incomes of $1,450 and over, consumed the remaining 58 percent.

Unequal as is this division of goods and services among the three groups, it is not as unequal as the division of the aggregate consumer income among them.[12] For, as table 11 indicates, the lower third of consumer units received only 10 percent of the total consumer income of $59 billion, and the middle third only 24 percent, while the upper third received 66 percent. These differences in the division of income and of expenditures are the result in part, of course, of the negative savings of the lower income groups, and their relatively small outlays for gifts and personal taxes.

The Lower Third

We have seen that the 13 million families and single individuals with incomes below $780 consumed only 14 percent of all goods and services combined. But what was their share in total food consumption? In total

Table 11.—*Share of each third of Nation's consumer units*[1] *in aggregate disbursements, 1935–36*

Category of disbursement [2]	Aggregate disbursements (in millions)			Percentage of aggregate disbursement for each category made by—		
	Lower third, incomes under $780	Middle third, incomes of $780 to $1,450	Upper third, incomes of $1,450 and over	Lower third	Middle third	Upper third
Current consumption:						
Food	$3, 108	$5, 310	$8, 447	18. 4	31. 5	50. 1
Housing	1, 515	2, 621	5, 370	15. 9	27. 6	56. 5
Household operation	703	1, 422	3, 160	13. 3	26. 9	59. 8
Clothing	618	1, 338	3, 305	11. 7	25. 5	62. 8
Automobile	203	755	2, 823	5. 4	20. 0	74. 6
Medical care	264	546	1, 395	12. 0	24. 7	63. 3
Recreation	115	362	1, 166	7. 0	22. 0	71. 0
Furnishings	112	368	942	7. 9	25. 9	66. 2
Personal care	155	292	585	15. 1	28. 2	56. 7
Tobacco	134	301	531	13. 8	31. 2	55. 0
Transportation other than auto	150	247	487	17. 0	27. 9	55. 1
Reading	84	165	302	15. 3	29. 9	54. 8
Education	30	87	389	5. 9	17. 2	76. 9
Other items	35	76	196	11. 4	24. 6	64. 0
All consumption items	7, 226	13, 890	29, 098	14. 4	27. 7	57. 9
Gifts and personal taxes [3]	171	516	2, 380	5. 6	16. 8	77. 6
Savings	−1, 207	−252	7, 437	−20. 2	−4. 2	124. 4
All items	6, 190	14, 154	38, 915	10. 4	23. 9	65. 7

[1] Includes all families and single individuals, but excludes residents in institutional groups.
[2] For explanation of items included in each category, see pp. 93–98.
[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

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[11] The share of each half of the Nation, and also of each fifth, can of course be readily obtained from the figures for tenths of consumer units shown in table 10, for total current consumption, gifts and personal taxes, and savings. To meet the needs of those interested in the division of the consumer market by quarters, a table is included in Appendix A (table 33A) showing the share of each fourth of the Nation in the aggregate outlay for each category of consumption, as well as for gifts and personal taxes and for savings.

[12] It should be pointed out, as in footnote 10, that this comparison is not between the distribution of consumer units by income and their distribution by total expenditure. The comparison is between the incomes and the expenditures of consumer units classified by income.

housing? In less essential categories of expenditure? Such questions are also answered by chart 3 and table 11.

Although consumer units in this lower third devoted more than three-fourths of their aggregate outlays to food and housing in 1935–36, they were able to claim only an 18-percent share in the aggregate food consumption of the Nation and a 16-percent share in the value of housing.

The share of the lower third in national consumption shrinks even lower when we consider the other major classes of goods and services, with one exception—transportation other than automobile. Their share of the aggregate expenditures for this purpose is 17 percent, only slightly less than their share in food expenditures, but it is counterbalanced by an extremely small share in automobile expenditures—equal to only 5 percent of the national outlay.

Expenditures of the lower third for reading, for personal care—including such quasi-necessities as shaves, haircuts, and shampoos—for tobacco, and for household operation, secure progressively smaller shares, ranging from 15 to 13 percent of the national outlays. Even smaller proportions of the national expenditure for clothing, furnishings, and recreation were made by this third of the Nation.

Twelve percent of the total consumers' medical bill in 1935–36 was paid by families and single individuals in the lower third. However, because of the many free services available to low-income groups through public and private clinics and hospitals, their relative share in medical and dental care was undoubtedly greater than this figure indicates. To an even greater extent, the 6-percent contribution of the lower third to educational expenditures fails to reflect the educational benefits derived from the public schools. As indicated earlier, it was not feasible to allocate items of "social" expenditure to specific income groups, but it should be remembered that the lower income classes are apt to receive more of these free services than do the high income classes.[13]

The Middle Third

As might be expected, the consumer units in the middle third share more liberally in all categories of national consumption. Only in food consumption and in tobacco, however, did they attain approximately a one-third share in the national aggregate. For most categories of consumption they contributed from 25 to 30 percent of the total expenditures. For three categories of consumption—recreation, automobile, and education—their contributions were smaller, ranging from 22 to 17 percent of the national totals.

The Upper Third

The one-third of consumer units with incomes above $1,450 accounted for a little over one-half of the national food consumption in 1935–36, and shared even more liberally in every other category of consumption. Automobile expenditures of this group equalled three-fourths of the national aggregate. The proportion of recreation expenditures made by this third was almost as high as that for automobiles, or 71 percent of the national aggregate; the proportion of education expenditures was even higher, or 77 percent of the total amount. Percentages for other classes of consumption ranged between 55 percent for reading, tobacco, and "other" transportation, and 66 percent for household furnishings.

Thus for every category of consumption the 13 million families and single individuals in the upper third of the Nation made a greater outlay than the 26 million consumer units in the lower and middle thirds combined—and this despite the fact that they used only 75 percent of their aggregate income for current consumption purposes. The volume of their expenditures gives some indication of the potential expansion of the consumer market if increased purchasing power were available to the lower income levels.[14]

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[13] For discussion of educational and medical services supplied by public and private agencies, see pp. 65–66.

[14] Further indication of the magnitude and character of this potential market is presented in Appendix C.

SECTION 2. THE SAVINGS OF AMERICAN CONSUMERS

Economists have bestowed considerable attention on the role of savings and investment in the functioning of our economy. The total volume of consumer savings and the contributions of various income classes to this total have been questions of vital interest for many years. Yet in spite of the importance attached to the problem there has been surprisingly little information available on the subject. Actual budgetary data on savings have been collected hitherto only for small samples of families, or for certain occupational groups. Many studies of family expenditures have not attempted to include any questions on savings, and the lack of uniformity in definition, scope, and coverage of such data as have been secured detracted greatly from their usefulness in making national estimates.

The Study of Consumer Purchases provides for the first time an extensive and comparable body of data on the savings of different groups of American families. As indicated in part I above, the information on income and expenditures secured from each family in the Study was supplemented by detailed information on changes in family assets and liabilities during the year. These data thus yield extremely valuable evidence concerning the total volume and distribution of savings by American families. Although the estimates of savings of single individuals are based on less satisfactory source materials, the national estimates presented in this section should approximate the total consumer savings in the United States in 1935–36. Personal savings of the 2 million institutional residents omitted from the estimates may be considered negligible.

Total Consumer Savings

The grand total of consumer savings in 1935–36 is estimated at $5,978 million.[1] This amount, already shown in chart 1 and table 7, represents 10 percent of the aggregate consumer income in the same year. The 29 million families of two or more persons saved an estimated $4,809 million, or 80 percent of this grand total. The 10 million single individuals saved $1,169 million.

Estimates Are Net Savings

It must be kept clearly in mind that this $5,978 million is a net savings figure for the year—obtained by subtracting the negative savings of some consumer units from the positive savings of others. The total positive savings and the total negative savings in 1935–36 were not estimated separately, since an average net savings figure at each income level was used in building up the net savings aggregate. Average savings were negative whenever the negative savings of consumer units at a given income level exceeded the positive savings of consumer units at that level. Thus at the low income levels, average net savings were negative, despite the fact that some consumer units at these levels accumulated positive savings during the year. Likewise, some consumer units at the high income levels spent more than they received, but average net savings for these income levels were positive.

For each income level, therefore, as well as for the total United States, it is possible to estimate only the net savings figure. Table 8 shows net negative savings of $1,533 millions for the 23,350,000 families and single individuals with incomes below $1,250. Net positive savings of $7,511 millions are shown for the 16,108,000 consumer units having incomes of $1,250 or more. These figures give some clue to the magnitude of the difference between the net savings of the Nation's consumers and the total positive savings accumulated during the year by that portion of the population whose current income exceeded their current outlays.

What Savings Include

The definition of the savings of families and single individuals was set forth in a previous section, and should be referred to again in considering the aggregate volume of savings for the Nation as a whole.[2]

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[1] It is interesting to note that Dr. Raymond W. Goldschmidt, of the Securities and Exchange Commission, in estimating the volume of savings from over-all data, obtains a similar figure of about $6 billion for savings of individuals for the year ending June 30, 1936, after adjusting for certain differences in items covered by his estimates and those presented here. See paper by Dr. Goldschmidt on "The Volume of Savings in the United States, 1933 to 1937," presented at the Annual Meeting of the American Statistical Association on December 27, 1938.

[2] See p. 22 and Appendix B, p. 98.

It should be noted that savings, as here defined, represent net changes in the assets or liabilities of consumers, exclusive of gains or losses from revaluation of assets.

It should further be realized that the estimate of aggregate savings presented includes the savings of all persons in the United States except the 2 million institutional residents, but not the savings of business and financial corporations,[3] eleemosynary institutions, and Federal, State, and local Governments. Changes in the debt structure between persons, therefore, do not appear in the national total, but changes in the relations of all persons on the one hand and all corporations, institutions, governments, and foreign debtors and creditors on the other do appear.

Savings by Different Income Groups

The fact that the high income classes accumulate most of the consumer savings of the Nation is clearly shown in chart 16, as well as in charts and tables already presented.[4] In contrast to the large net deficits of the 59 percent of consumer units with incomes below $1,250, table 8 revealed total positive savings of $7,511 millions by the 41 percent of consumer units with incomes above $1,250—an amount considerably in excess of the net positive savings for all consumer units. It is apparent from chart 16 that the net positive savings of the income classes between $1,500 and $3,000 are, in effect, counterbalanced by the net negative savings of the income classes below $1,000, so that all income classes below $3,000 made only a negligible net contribution to the aggregate savings of the Nation in 1935–36. The 7 percent of families and single individuals with incomes above $3,000 accumulated positive savings of more than $5,900 million—an amount almost equal to the national aggregate of $5,978 million. Of this amount, about $1 billion was saved by the 4.6 percent of consumer units with incomes between $3,000 and $5,000. Another $1,218 million was saved by the 1.5 percent of consumer units with incomes between $5,000 and $10,000, leaving an estimated $3,512 million saved by the 0.9 percent of consumer units with incomes of $10,000 and over.

Savings by Each Tenth of the Nation

The concentration of savings at the top of the income scale was also shown by chart 4 and table 10, which recorded the net savings for each tenth of consumer units. Families and single individuals in the six poorest tenths had net negative savings aggregating $1,523 million. Those in the next three tenths—the seventh,

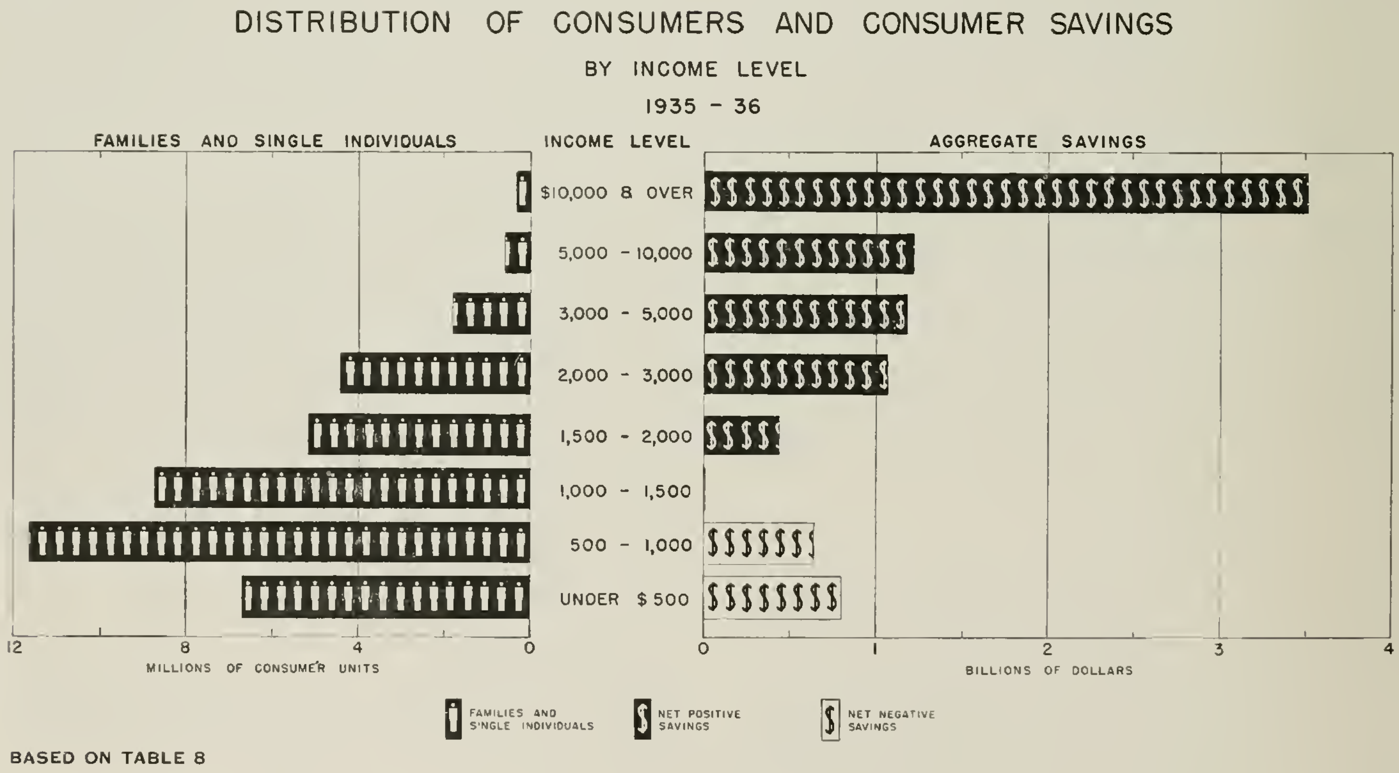

Chart 16

Each figure symbol represents 400,000 families and single individuals.
Each dollar symbol represents $100 million of aggregate savings.

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[3] Total corporate savings, which are excluded from the present savings figures, have been estimated at −$1,263 million in 1935 and −$765 million in 1936. See Nathan, Robert R., *Income in the United States, 1929–37*, U. S. Dept. of Commerce, 1938.

[4] For qualifications regarding savings figures at higher income levels, see p. 21, footnote 24

eighth, and ninth—had net positive savings of only $1,216 million. The top tenth, composed of consumer units with incomes of $2,600 and over, had net positive savings of $6,285 million—or 105 percent of the net savings figure for all income levels combined.

Savings by Each Third of the Nation

Contributions of each third of the Nation to the grand total of savings were shown in chart 2 and table 11 above. The contribution of the lower third was negative, to the amount of $1,207 million. Consumer units in the middle third almost broke even, but negative savings slightly overbalanced positive savings, to the amount of $252 million. The upper third of consumer units accumulated net positive savings of $7,437 million, an amount equal to 124 percent of the net savings for the Nation as a whole.

Limitations of Savings Estimate

The concentration of savings at the very high income levels undoubtedly tends to make the estimate of total consumer savings one of the least reliable of the estimates presented in the study. Although the sample expenditure data from the Study of Consumer Purchases were far more adequate than any heretofore available, the number of schedules for high income families was very small—as the previous discussion has pointed out. It was necessary, therefore, in deriving average spending patterns for income levels of $20,000 and over, to rely almost entirely on extrapolations based on data for the lower income groups.[5]

Inasmuch as only small proportions of the total expenditures for consumer goods and services are made by those families and single individuals with incomes above $20,000, errors in extrapolation are relatively insignificant in the estimates of national consumption, except perhaps for education. The margin of error is obviously much greater for aggregate savings, because of the large share of national savings contributed by the small percentage of consumers at the high income levels. If the estimated figure for average savings at $20,000 and over is too high or too low, the total savings estimate is considerably influenced.

Minimum and Maximum Estimates

Fortunately, there are certain crude tests available for ascertaining the possible range of error in extrapolation, and thus establishing minimum and maximum estimates of savings at these high income levels, between which the true savings figure should fall.

Briefly, it was assumed for purposes of the minimum estimate, that families and single individuals having incomes of $25,000 or more do not increase the percent of income saved beyond the percent saved at income level $20,000 to $25,000—the highest income level for which sample data were deemed at all adequate for the purposes of this test. The average percent of income saved at this income level was applied to the aggregate income of all consumers with incomes above $20,000 to obtain a minimum estimate of savings for these high income levels.

It is possible, of course, that at very high income levels, the percent of income saved not only ceases to rise but actually begins to decline, and that at extremely high incomes it may fall below the percent saved at the $20,000 to $25,000 level. But this possible overestimate of savings at the top of the income range is almost certainly more than counterbalanced by the underestimate of the percent saved by those with incomes not far above $20,000. For the group as a whole, therefore, the assumed minimum estimate of savings appears to be a true minimum.

For the purposes of the maximum estimate of savings, a parallel extreme assumption was adopted—the assumption, in this case, that families and single individuals with incomes of $25,000 and over do not increase their absolute dollar outlays for current consumption, gifts and personal taxes above the average outlay of families at the income level $20,000 to $25,000, but put all of the additional income into savings.

This assumption appears, of course, to be well beyond the limits of possibility. For since personal tax payments do continue to increase as income rises, it implies that outlays for gifts or for current consumption must actually be smaller in amount at the higher income levels. Since such a curtailment in expenditures seems out of the question, it is reasonable to assume that the true savings figure falls considerably below this maximum estimate. It thus appears likely that the actual amount of savings falls closer to the minimum than to the maximum figure.

Applying the above assumptions to the savings data, it was found that total net savings in the income class $20,000 and over would probably fall in the range between a minimum of $2.1 billion and a maximum of $3.3 billion. The actual estimate arrived at in this report by extrapolating from the savings data for lower income levels was $2.4 billion. The resulting minimum and maximum estimates for all income classes combined were $5.7 billion and $6.9 billion, respectively. The actual estimate of total savings—$6.0 billion—it may be pointed out, is closer to the minimum than to the maximum figure.[6]

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[5] See pp 20-22 and Appendix B, pp 136-137.

[6] No attempt was made to determine the possible range of error in the savings estimates for the income groups below $20,000. For further discussion of reliability of estimates of savings, see Appendix B, pp. 136-137.

SECTION 3. INCOME TRANSFERS THROUGH GIFTS AND PERSONAL TAXES

Considerable interest attaches to that part of consumer income which is neither spent for goods and services nor withheld from current consumption as savings, but which is given away voluntarily to individuals, churches, and welfare organizations, or is paid out to the local, State and Federal Governments in the form of income taxes and certain other direct personal taxes. Just how is this part of the total tax burden divided? How much of it is borne by the high, low, and middle income classes? Which income groups bear the brunt of supporting the churches and private charity?

Informed answers to the above questions would have important social and economic bearing. Data on income disbursements for gifts and personal taxes have heretofore been fully as meager as data on consumer savings. Fortunately, the findings from the Study of Consumer Purchases now make it possible to throw at least a partial light on the volume and distribution of such outlays. The results, however, are subject to a much greater margin of error than are the estimates for the various categories of current consumption. The problem of arriving at national estimates of gifts and personal taxes was complicated, as in the case of savings, by the relatively large proportion of such outlays made by the very high income groups. The sample data for families in these income levels were very scanty, so that it was necessary, as indicated above, to rely mainly on extrapolated figures based on data for the lower income groups. For single individuals the sample data available were even less adequate, and the estimates for this group, and hence for all consumer units, are less detailed and less dependable than those for families.[1] As with savings, outlays for gifts and personal taxes by institutional residents, omitted from these estimates, may be considered of negligible importance.

The Estimate of Gifts

Aggregate transfers of consumer income in the form of gifts to individuals, churches, and other organizations in 1935–36 are estimated at $2,178 million. This represents almost 4 percent of the aggregate consumer income of the Nation in 1935–36.

Proportion of Gifts Made by Single Individuals

Considerably more than a third of these transfers—gifts totaling $854 million—were made by the 10 million single individuals in the population. Families accounted for only 61 percent of the total value of gifts, a distinctly smaller proportion than they contributed to the national aggregate for any other category of outlay, with the exception of expenses for transportation other than automobile. It would appear from these figures, given in table 7, that single men and women without immediate dependents or family ties gave more generously in proportion to their incomes than did family units.

Kinds of Gifts Made by Families

As the discussion in part I has indicated,[2] it is possible to show a rough division of total gifts made by families into three types of outlay—gifts made to relatives and other individuals, contributions made to churches and other religious organizations, and contributions to community chest and other welfare agencies. For the lower income levels this division of the total outlay for gifts can be considered fairly reliable, but for incomes of $10,000 and over the breakdown of the total is highly tentative. Since a considerable share of the aggregate outlay of all families is made by the high income groups, the national estimates for each type of gifts are also highly tentative. For this reason these figures are presented only in Appendix A, table 27A.

With due allowance for the possibility of error in the figures, it is nonetheless interesting to note that gifts to individuals, including amounts contributed to the support of dependents not members of the economic family, comprised more than half of the $1,324 million total outlay for gifts made by the Nation's families. Churches and religious organizations received more than a third of the total, while the remaining portion went to charitable and welfare agencies of various types. It is also interesting to observe that more than half of the total contributions to church and religious organizations were made by families with incomes below $2,500, while only a third of the contributions to other agencies were drawn from these lower income groups.

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[1] For discussion of estimates for families and for single individuals, see Appendix B, sections 3 and 4, especially pp. 137–141, and 147.

[2] See pp. 28–29.

Gifts Made, Not Gifts Received

It should be noted that the estimates for gifts shown in this study represent gifts *made by* families and single individuals. They should not be confused with estimates of the total amounts *received* as gifts or contributions during the year, either by other families or single individuals or by religious and welfare organizations.

Thus, contributions to churches, insofar as they go to pay the salaries of ministers, would appear in consumer income estimates as payments for services and not as gifts. Some of the contributions to community chests and other welfare agencies are transferred to families and single individuals in the form of relief income, which might possibly be considered a gift, but other amounts go to pay the salaries of clerical, professional, and administrative workers. On the other hand, public agencies transfer to families and single individuals large amounts of relief income that is made available through taxes and not through voluntary gifts. Because of the need for distinguishing between gifts made and gifts received, great care should be exercised in comparing the gift estimates presented in this study with other data on gifts and contributions.

The Estimate of Certain Personal Taxes

Transfers of consumer income for certain direct personal taxes in 1935–36 have been estimated at $889 million. This amount, shown in chart 1 and table 7, includes, it must be remembered, only Federal and State personal income taxes, poll taxes, and certain minor personal property taxes. Outlays of families for such taxes aggregated $704 million, or 79 percent of the national total. Single individuals paid out $185 million, or 21 percent of the total. While the share of single individuals in these personal tax outlays is not as high as their share in gifts, it is a trifle higher than their share in total consumer income.

In considering these estimates of personal tax payments, it must be recognized that they represent only a small part of the total tax burden of the Nation. The total volume of taxes collected in 1935–36, including Federal, State, and local revenues from all sources, amounted to approximately $10.5 billion [3]—more than ten times the tax payments covered by the present estimates. As indicated in an earlier section of the report,[4] various other taxes levied upon consumers are included in the estimates for current consumption, since they are merged with the expenditures for the particular goods and services to which they apply. These taxes—including sales taxes, gasoline taxes, excise taxes on amusements, tobacco and liquor, and taxes on automobiles and on owned homes—form a much larger share of the total tax burden borne by consumers than do the personal taxes for which separate figures are presented here.[5] It must also be kept in mind that no corporation taxes and no inheritance, estate, or gift taxes[6] are included in the present estimates.

Because of the limited scope of the tax estimates presented in the report, they obviously offer no basis for conclusions regarding the incidence of the total tax burden on the various income classes. Such conclusions as are drawn must be limited to the specific taxes identified in the study.[7]

Comparison With Other Tax Data

A rough check on the reliability of the tax estimates presented can be made by combining data on Federal personal income tax payments with available estimates of State personal income taxes, poll taxes, and personal property taxes.

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[3] See Kimmel, Lewis H., *Cost of Government in the United States, 1935–37*, National Industrial Conference Board, Inc., 1938, p. 29.

[4] See p. 27.

[5] Taxes on motorists, including gasoline taxes, motor vehicle licenses, and taxes on auto parts, are estimated at $1,248 million for 1935–36 by the Tax Research Foundation. Excise taxes on alcohol, tobacco, admissions and amusements, and miscellaneous items are estimated at $1,421 million, and general sales taxes at $392 million. See *Tax Systems of the World*, 7th Edition, 1938, p. 391. While all of these taxes are not paid directly by consumers, the total amount borne by consumers, plus the taxes paid on owned homes, forms a substantial part of the total tax burden, and far exceeds the amount paid as personal income taxes, poll taxes, and the minor personal property taxes covered in the present estimates.

[6] Federal and State corporation income taxes are considered items of business expense comparable to other business taxes. Although such taxes are levied on the net earnings of corporations, and hence reduce the dividends received by individual stockholders, the amounts paid out as taxes do not appear in the estimates of net consumer incomes and thus would not be included in the estimates of personal tax payments shown in the present study. Inheritance, estate, and gift taxes likewise do not appear in the present estimates of personal taxes, since inheritances and gifts were not counted as current income except insofar as they were used for current living expenses.

According to estimates presented by the Tax Research Foundation, Federal and State corporation income taxes aggregated approximately $855 million in 1935–36, and inheritance, estate, and gift taxes, $480 million. Thus they exceeded in amount the aggregate tax payments for the particular personal taxes covered by the present study. The Tax Research Foundation, *Tax Systems of the World*, 7th Edition, 1938, p. 391.

[7] The distribution of this part of the total tax burden by income level is particularly misleading as regards the tax burden borne by the lower income groups. Since the direct taxes identified in this study represent primarily income taxes, they are progressive in their incidence. Sales and excise taxes, however, as well as those indirect business taxes shifted to consumers, are regressive in incidence. They fall most heavily on consumers in the lower income groups, who spend a greater proportion of their incomes on the taxed commodities than do those in higher income groups.

The complexity of the Federal, State, and local tax structures, and the debatable extent of tax shifting make it impossible to prepare satisfactory estimates of the actual incidence of the total tax burden by income classes. However, a recent study of the Twentieth Century Fund, applying the tax rates levied in two States to various hypothetical cases, indicates clearly the substantial nature of the tax burden borne by the lower income groups—a burden not revealed by the estimates presented in the present report. See Twentieth Century Fund, *Facing the Tax Problem*, 1937, ch. 16, The Distribution of the Tax Burden, pp. 221–237, and pp. 317–321; see, also, Newcomer, Mabel, Estimate of the Tax Burden on Different Income Classes, in *Studies in Current Tax Problems*, The Twentieth Century Fund, 1937, pp. 1–42.

Federal personal income taxes collected during 1935–36 amounted to $674 million.[8] However, this figure is not directly comparable with the Federal income taxes included in the present tax estimate, since the collection figure includes payments of back taxes and does not include those taxes which were due during the fiscal year but not paid. The income tax figures reported in the Study of Consumer Purchases include all taxes due during the schedule year, whether or not the payments were actually made in full, and do not include payments of back taxes, which were recorded on the schedule as a decrease in liabilities.

It is possible to make only a rough adjustment of the collection figure for 1935–36 to take account of these differences in coverage. By subtracting $85 million of back taxes collected during 1935–36 and adding $96 million of back taxes collected during the next fiscal year, we obtain an estimate of $685 million for Federal personal income taxes for the year 1935–36.[9] This figure is undoubtedly higher than the Federal income taxes included in the present estimates, because tax payments made by estates and trusts are included in the collection figures, and because part of the back taxes collected in 1936–37 represent payments for years earlier than 1935–36, as well as penalties and interest received in connection with delinquent payments.

A further cause for discrepancy between the two figures lies in the fact that the tax data collected in the Study of Consumer Purchases do not refer strictly to the fiscal year 1935–36, but cover varying 12-month periods during 1935 and 1936. In order to allow for this factor, a comparison might be made with weighted figures for tax liabilities shown on individual income tax returns for the years 1934 and 1935, rather than with tax collection figures. Using this type of Federal income tax data, a much lower figure of $544 million is obtained, which is somewhat more comparable to the Federal income tax figure derived by extending the sample data.[10]

Individual income taxes collected by the States are estimated at $100 million for the calendar year 1935 and at $144 million for the calendar year 1936.[11] A simple average of the two figures gives an estimate of $122 million for State personal income taxes collected in 1935–36. Poll taxes collected in 1935–36 are estimated at $17 million.[12]

It is extremely difficult to obtain an independent estimate of those personal property taxes in the Study of Consumer Purchases. The estimate that approaches it most nearly is that for nonbusiness personalty, made by the Twentieth Century Fund for 1936, and amounting to $170 million.[13] This estimate is probably somewhat higher than the amount collected during the 12-month period covered by this study.

The sum of these various estimates, using the $685 million figure for Federal income taxes, is $994 million—somewhat higher than the estimate of $889 million obtained by extending the sample data. Using the lower and more comparable figure of $544 million for Federal income taxes, we obtain an estimate of $853 million, which runs slightly under the estimate shown in the present study.

Division of Gifts and Personal Taxes by Income Groups

A division of the outlays for gifts and personal taxes by income level is possible only by considering the two types of transfers together. Gifts and personal taxes were combined in the sample data for single individuals and it was not feasible to estimate them separately for each income level.[14] Separate estimates of gifts and personal taxes for families are, however, available by income level. These estimates are presented in appendix table 27A mentioned above.

The aggregate outlays for gifts and personal taxes and the proportions of the total contributed by each income level were shown in table 8 above. Chart 17 indicates that the 69 percent of families and single individuals in income classes below $1,500, who as a group incurred substantial negative savings in 1935–36, contributed almost a fourth of the aggregate outlay for gifts and personal taxes in that year. The income classes between $1,500 and $3,000, containing 24 percent of all consumer units, contributed slightly more than a fourth of the total value of such transfers. Still another fourth was contributed by the 6.5 percent having incomes between $3,000 and $15,000, leaving the last fourth of all gifts and personal taxes to be accounted for by the one-half percent of consumer units with incomes of $15,000 and over.

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[8] U. S. Treasury Department, *Annual Report of the Commissioner of Internal Revenue*, 1937, p. 1.

[9] Information on back individual income tax payments supplied by the Accounts and Collections Unit of the Bureau of Internal Revenue, U. S. Treasury Department.

[10] A weighted average of tax liabilities shown on individual income tax returns for 1934 and 1935. Data on income tax returns from *Statistics of Income for 1934* and *Statistics of Income for 1935*, U. S. Treasury Department, Bureau of Internal Revenue In determining the weights to be given to the 2 years, account was taken of the fact that some of the schedules in the Study of Consumer Purchases covered the year 1935 when payments on the tax on 1934 incomes were being made, while other schedules included the tax on 1935 incomes. Account was also taken of the fact that some payments on Federal income taxes were made in two to four installments and others were paid in full in March. For further explanation, see Appendix B, pp. 139–140.

[11] Figure for 1935 from U. S. Treasury Department, Division of Research and Statistics, *Collections from Selected State-Imposed Taxes, 1930–1936*, 1936, Part I, table A. Figure for 1936 from Twentieth Century Fund, *Facing The Tax Problem*, 1937, pp. 530–531.

[12] Tax Research Foundation, *Tax Systems of the World*, 7th Edition, 1938, p. 391.

[13] Twentieth Century Fund, Inc., *Studies in Current Tax Problems*, p. 18, footnote 14.

[14] For method of dividing the aggregate estimate for single individuals for all income levels combined, see Appendix B, p. 151.

Share of Each Tenth of the Nation

The share of all gifts and personal taxes provided by each tenth of the Nation's consumer units increased rapidly with each successive group, as chart 4 and table 10 have already shown. The highest tenth of consumer units transferred $1,644 million of their income in the form of gifts and personal taxes. This amount was nearly 5 times as large as the aggregate outlay for gifts and personal taxes made by the next highest tenth, and nearly 70 times the amount of such outlays made by the lowest tenth, whose combined gifts and personal taxes totaled only $24 million. Nevertheless, the distribution by the 10 proportionate income groups was less unequal than the distribution of savings, discussed above.[15]

Share of Each Third of the Nation

The marked disparity in the proportions of gifts and personal taxes contributed by the three thirds of the Nation has also been revealed above, in chart 2 and table 11. The lower third of all families and single individuals with incomes below $780, provided less than 6 percent of the national total. The middle third provided 17 percent, while the preponderant share of 77 percent came from the 13 million consumer units in the upper third, having incomes above $1,450.

Purchasing Power With Gifts And Personal Taxes Deducted

The discussion in the preceding pages leads directly to a question in which there is widespread interest and on which sharp differences of opinion are frequently found. What is the effect of outlays for gifts and for income taxes upon the distribution of purchasing power among different groups of the Nation's consumers? To what extent do the payments made by the higher income groups offset the prevailing inequality in the distribution of total consumer income?

The results of the present study provide at least a partial answer to this highly important question. If we deduct the total amount paid out as gifts and personal taxes from the total income received by each income group, we can consider the remainder as constituting the current purchasing power of the families and individuals in the group. This amount they are free to use as they choose—to spend on current consumption or to invest as savings. Measured in this way, the total purchasing power of all of the Nation's consumers in 1935–36 was $56.2 billion—the difference between total income and total outlays for gifts and personal taxes, or, correspondingly, the sum of total consumption expenditures and total savings.[16] How then was

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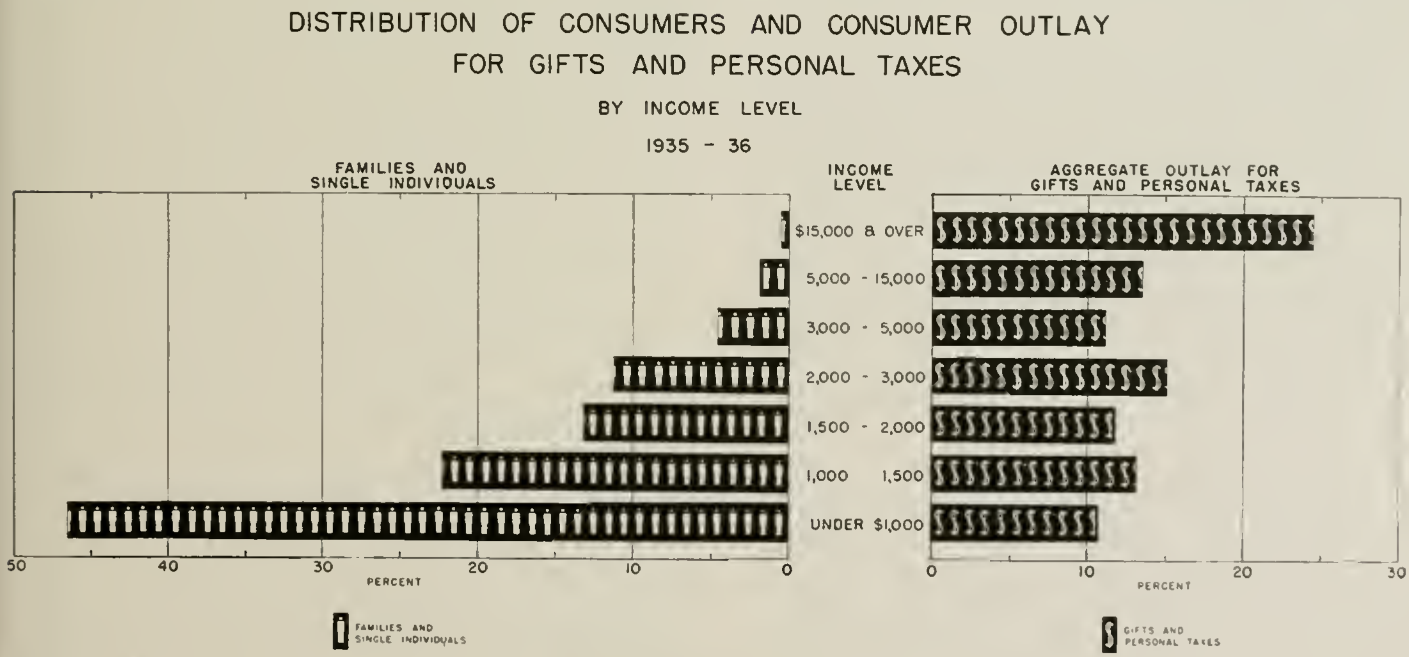
[15] See pp. 54–55.

[16] This definition of "purchasing power" is, of course, only one of a number of possible definitions of this vague term. It is used here merely as a convenient means of describing the amount left after gifts and certain personal taxes are paid out of current income. A more satisfactory measure of "current purchasing power," even



BASED ON TABLE 8

Chart 17

Each figure symbol represents 1 percent of all families and single individuals.
Each dollar symbol represents 1 percent of aggregate outlay for gifts and personal taxes.

Note.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

this purchasing power distributed among the various income groups?

From the figures shown in table 8 and in charts 2 and 17 we have seen that the top one-half of 1 percent of the Nation's consumers—those with incomes of $15,000 and over—paid out about $750 million for gifts, for income taxes, and for the minor personal taxes covered by the study. While this outlay accounted for one-fourth of the entire national outlay for gifts and personal taxes, it absorbed only 13 percent of the income of this top group. Out of a total income of $5.8 billion, these 178 thousand families and individuals retained nearly $5.1 billion for their own use. Thus their share in the total purchasing power of the Nation was just 9 percent—only a little less than their 9.8 percent share in total income.

At the other end of the income scale, the poorest 12½ million families and individuals—the 32 percent with incomes under $750—received about the same amount of income—$5.7 billion, or 9.6 percent, of the total. Their outlay for gifts and for personal taxes was, of course, much smaller—approximately $150 million. Their purchasing power from current income, therefore, exceeded slightly the share received by the top one-half of 1 percent of the Nation—amounting to just under 10 percent of the total $56 billion.[17] Nevertheless, it required the combined purchasing power of most of this poorest group—of more than 11½ million families and individual consumers—to equal the purchasing power of the 178 thousand at the top.

For each of the income groups between these two extremes we also find the percentage share of purchasing power practically identical with the percentage share of income. In fact, for none of the income levels shown in table 8, with the exception of the level of $20,000 and over, do the two proportions differ by more than two-tenths of 1 percent. Those with incomes of $1,000 to $1,250, for example, received 9.4 percent of total income, and 9.6 percent of total purchasing power; those in the $5,000 to $10,000 level received 6.9 percent of income and 6.8 percent of purchasing power. Even for the highest income group, the proportions varied less than 1 point.[18]

Thus it is clear that the results shown by the present study give little support to the belief that payments for gifts and income taxes serve to redistribute purchasing power to any appreciable degree. In considering this conclusion, however, it must be remembered that the figures presented here do not reveal the payments made by consumers in the very high income brackets. Most of the 178 thousand families and individuals in the income range of $15,000 and over received less than $50,000, and more than half received less than $25,000.[19] The proportion of income devoted to gifts and personal taxes by the group as a whole is therefore strongly influenced by the smaller outlays of those at the lower end of this wide income range. While the total outlay of $750 million is not sufficient to affect significantly the inequality in the distribution of income among all consumers, it undoubtedly results in a considerable "leveling off" of incomes within this top income group.

Even when the limitations of the figures for the higher income brackets are kept in mind, the findings of the present study will undoubtedly run counter to the convictions of many readers. For the opinion is widely held that income tax payments, by themselves, bring about a much greater redistribution of purchasing power than is shown here for gifts and several types of taxes combined.[20] It must be remembered, however, that the total volume of Federal personal income tax payments in 1935–36 was only $685 million, even if we accept the larger of the two estimates from official tax statistics mentioned above, and the total volume of State income tax payments only $122 million. Most of these income tax payments, to be sure, were made by those in the higher income brackets—that is, by the 178 thousand families and individuals with incomes of $15,000 and over.[21] But even if this top income group had paid all of the income taxes, their total income of

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according to this type of definition, would allow for the deduction of all tax payments, but, as indicated above, it is impossible with the available data to determine the total amount of taxes paid by different income groups. As indicated later in the discussion, it is also significant to measure purchasing power with taxes deducted from current income, but with gifts included.

[17] It should be noted that this total purchasing power from current income was augmented, as previously explained, by additional purchasing power obtained by drawing upon resources accumulated in previous years, by borrowing, and through credit accounts.

[18] It should be noted that these comparisons are not between the distribution of consumer units by income and their distribution by purchasing power. The comparisons are made between the incomes and the purchasing power of consumer units classified by income level. Hence the figures do not reflect the full extent of the inequality in the division of the total purchasing power of $56.2 billion. For explanation, see discussion of distribution of consumption expenditures in footnote 10, p. 50 above.

[19] See preceding report, *Consumer Incomes in the United States*, table 2, p. 6.

[20] It is frequently argued, for example, that in estimating the distribution of income among consumers, income tax payments should be deducted before the estimates are prepared, and that the resulting distribution would show a much smaller degree of inequality than the distribution based on total income received. Such a procedure, of course, would give a distribution of purchasing power rather than a distribution of income, and if carried to a reasonable conclusion would seem to require the deduction of all tax payments. If income taxes only are deducted, the distribution obtained would actually differ very little from the distribution of total income received, as the text discussion indicates. If it were also possible to deduct sales taxes, excise taxes, and other taxes included in the estimates of consumption expenditures—taxes which, as indicated in footnote 7 above, are regressive in their incidence—the resulting distribution would be somewhat more unequal than the distribution of income-minus-income-taxes, and possibly than the distribution of total income received.

[21] The figures from the present study indicate that this top one-half of one percent of the Nation accounted for approximately 66 percent of total consumer outlay for direct personal taxes in 1935–36. This estimate is derived as follows: As Appendix table 27A indicates, families with incomes of $15,000 and over paid out $496 million, or 70 percent of total family payments for all types of taxes covered by the study. The division by income level of the total tax payment of $185 million made by single individuals is not presented in the report, since it can be determined only on a very rough basis. However, the evidence from the scanty data available suggests that approximately $95 million was paid by individuals with incomes of $15,000 and over, or 51 percent of the total. For both groups of consumers combined, therefore, the contribution of the top one-half of one percent approximates $600 million—two-thirds of the total consumer outlay of $889 million for direct personal taxes.

$5.8 billion would have been reduced by less than 14 percent,[22] and the $5 billion of purchasing power they retained would still have exceeded the combined purchasing power of the poorest 11 million families and individuals at the bottom of the income ladder. Thus, whether we consider income taxes alone, or taxes and gifts combined, the effect of such outlays on the distribution of consumer purchasing power appears to be far less significant than is commonly supposed.

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[22] Reference should be made again to the explanation presented on page 28 above as to the lack of direct comparability between the average tax payments at different income levels shown in the present study and the taxes levied by the Federal Government on incomes of various sizes.

SECTION 4. THE CONSUMPTION OF INSTITUTIONAL RESIDENTS

To complete the picture of national consumption, estimates should be included of the disbursements of the 2 million persons living in institutions of various types, in military and naval posts, in labor camps and in other quasi-institutional groups. Since by far the greatest portion of the income of these institutional residents is supplied by the institution in the form of subsistence and care, the institutional agency itself, rather than the individual resident, must be regarded as the spending unit. Estimates of the disbursements of institutional agencies are therefore presented in table 12.

Scope and Limitations of the Estimates

These estimates, it should be emphasized, are necessarily only rough approximations, because of the incompleteness and heterogeneity of the available data for these consumers. It is important to bear in mind, also, that the figures presented here represent only the disbursements of the institutional agency itself for the subsistence and care of residents. They do not include expenditures of residents out of their personal funds, since no data were available to indicate how such personal funds were distributed among the different categories of consumption. In the case of the quasi-institutional groups, the omitted portion of consumption is sizable; salaries and wages received by members of the Civilian Conservation Corps amounted to approximately $48 million,[1] and those received by members of military and naval posts and crews on vessels to $145 million. The figure shown in table 12 for total institutional consumption—$531,500,000—differs, therefore, by $192,800,000 from the estimate of the aggregate income of institutional residents presented in the preceding report, *Consumer Incomes in the United States.*[2]

In estimating the consumption expenditures of institutional agencies, administrative and other overhead costs have not been included, nor, of course, have capital outlays. While these costs are part of the costs of providing institutional care, they are comparable to expenditures made by governmental and private agencies for various services supplied to the population as a whole. The purpose of the institutional estimates presented here was to parallel the expenditures for those items of current personal consumption which families and single individuals secure for themselves out of personal incomes and from home production.

Even for these items, satisfactory estimates are not possible with the data available, except possibly for food and for "household" operating and furnishing expenses. In estimating housing expenditures, for example, it was not found feasible to ascribe an imputed value for institutional housing, although the expenditure for the maintenance of buildings and grounds was included. It was likewise found to be impracticable to include in clothing expenditures an imputed value for the institutional labor used in making clothing for the residents.

Further, the estimated figures for medical care include only medical supplies and equipment; they do not include the salaries of the professional medical staff, as it was impossible to separate the costs of the professional services rendered by this staff from the costs of administrative services. Similarly, it was impossible to determine the total amount of outlay representing expenses for education, personal care, and recreation provided by the institutional agency, or the value of reading material and tobacco supplied to the residents. The omission of some of these items might be justified on the grounds that the services are comparable to those received by many families and single individuals from public schools, libraries, and recreational facilities, and from free medical clinics. But if this assumption is adopted, the omission of these items of institutional consumption must be kept in mind in considering the estimates of social expenditures presented in the following section.

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[1] This figure represents only that portion of earnings that enrollees in the Civilian Conservation Corps retained for their own use. The greater part of the wages of this quasi-institutional group was sent to families of enrollees and was therefore not included in the estimated aggregate income of institutional residents.

[2] See table 16, p. 32.

TABLE 12.—*Aggregate disbursements of institutional agencies for main categories of consumption,*[1] *1935–36*

Type of institutional agency	Number of institutional residents	Aggregate disbursements (in thousands) for—							
		Total consumption	Food			Clothing [2]	Housing [3]	Household operation and furnishings	Medical supplies and equipment [4]
			Total	Purchased	Produced by institution				
Institutions for:									
Mental defectives	563, 000	$80, 500	$48, 000	$31, 500	$16, 500	$5, 200	$4, 200	$20, 100	$3, 000
Physical defectives	101, 000	41, 000	23, 300	18, 300	5, 000	1, 200	3, 100	9, 400	4, 000
Prisoners and delinquent adults	207, 000	31, 200	17, 800	12, 400	5, 400	3, 500	1, 700	7, 300	900
Dependent and delinquent children	160, 000	31, 500	15, 100	9, 500	5, 600	3, 800	2. 600	9, 000	1, 000
Dependent adults	169, 000	29, 900	14. 900	12, 800	2, 100	2, 000	1, 900	10, 000	1, 100
Total	1, 200, 000	214, 100	119, 100	84, 500	34, 600	15, 700	13, 500	55, 800	10, 000
Quasi-institutional groups:									
Civilian Conservation Corps and labor camps	515, 000	[5] 202, 400	86, 500	86, 500	------------	53, 700	25, 800	22, 700	13, 700
Military and naval posts and crews on vessels	285, 000	[5] 115, 000	68, 600	68, 600	------------	12, 600	6, 300	26, 100	1, 400
Total	800, 000	[5] 317, 400	155, 100	155, 100	------------	66, 300	32, 100	48, 800	15, 100
All institutional groups	2, 000, 000	[5] 531, 500	274, 200	239, 600	34, 600	82. 000	45, 600	104, 600	25, 100

[1] Covers only the disbursements of the institutional agency itself for the subsistence and care of residents. Does not include expenditures of residents out of their personal funds. Also does not include administrative and other overhead costs nor capital outlays of the institutional agency.

[2] Includes only money expenditures for clothing and clothing materials, and not the imputed value of clothing made in the institutional agency.

[3] Includes only money expenditures for rent, insurance, repairs and maintenance, and not the imputed value of housing supplied by the institutional agency.

[4] Does not include salaries for professional services of medical staff.

[5] Salaries and wages received by members of quasi-institutional groups, amounting to $192,800,000, were not distributable to specific categories of consumption. The aggregate disbursements for these groups are accordingly less than the aggregate income figures presented in the report, *Consumer Incomes in the United States*.

Aggregate Expenditures for Consumer Goods and Services

In estimating the disbursements of institutional agencies in 1935–36, the 2 million institutional residents have been divided into seven main groups according to the type of resident cared for, or—in the case of the quasi-institutional groups—the general type of work performed by the members.

Expenditures of all institutional agencies for the consumption items covered by the estimates amounted to $532 million in 1935–36. Institutions proper, whose residents made up 60 percent of the total institutional population, accounted for 40 percent of total institutional disbursements, or $214 million, while the 40 percent in quasi-institutional groups, with higher per capita incomes, accounted for 60 percent of the aggregate consumption, or $317 million. Total disbursements by all institutional agencies are estimated at $274 million for food, $105 million for "household" operation and furnishings, $82 million for clothing, $46 million for housing, and $25 million for medical supplies and equipment.

For consumption categories other than household operation and furnishings, the quasi-institutional groups accounted for a larger share of aggregate disbursements than did the five types of institutions. The latter groups, containing three-fifths of the total institutional population, were responsible for approximately 20 percent of the aggregate institutional expenditures for clothing, 30 percent of the expenditures for housing, 40 percent of those for medical supplies and equipment, somewhat over 40 percent of those for food, and slightly more than 50 percent of those for household operation and furnishings.

The Total Consumption of the Nation

By adding the expenditures of institutional agencies to the aggregate expenditures of families and single individuals shown in table 7, we obtain for the first time an approximately complete picture of national consumption in 1935–36—estimates of the combined expenditures of all of the 128 million consumers in the population.

Thus the $532 million expenditures shown for institutional residents raise the total current consumption of the Nation to $50,746 million, as compared with the $50,214 million shown in table 7 for all families and single individuals. The national food bill is increased substantially, from $16,865 million to $17,139 million. Estimated money expenditures for housing and for household operation and furnishings are also increased, giving total national expenditures for these categories of $7,171 million and $6,812 million, respectively. The estimated clothing bill for the Nation is raised to $5,343 million, and medical care expenditures to $2,230 million. Since data are not available on the expenditures of institutional residents out of personal incomes, it is not possible to complete the national estimates for other categories of consumption by adding to the figures presented in table 7 the expenditures of this group of 2 million consumers. It must be remembered, moreover, that the national totals presented above for clothing, housing, and medical care, and possibly also those for food and household operation and furnishings, would be still higher if we could account for all of the expenditures of institutional residents.

Despite the limitations of the estimates, it is interesting to note that the average per capita expenditures for the 2 million institutional residents are surprisingly similar to those for the 126 million consumers living in families and as single individuals. Thus, per capita expenditures of institutional residents for food, derived from table 12, are $137 as compared with the $134 shown in table 5 above for all other consumers. Per capita expenditures for clothing and for household operation and furnishings are also similar, averaging $41 and $52 for institutional residents and $42 and $53 for all other consumers. For the five categories of consumption shown in table 12, institutional residents averaged $266, while families and single individuals averaged $304 per capita for these categories, and $399 per capita for all items of current consumption.

Sources of Data

The estimates presented in table 12 of the disbursements of institutions for mental and physical defectives, prisoners, delinquents, and dependents are based on sample data for per capita subsistence costs in State institutions in 17 States. Since comparable data were not available for privately-supported institutions or for Federal and local institutions, and since the bulk of the institutional population is cared for in State institutions, it was assumed that the pattern of spending of the State institutions was representative of all other institutions.

Data on subsistence costs and wage payments for members of the Civilian Conservation Corps in 1935–36 were supplied by that agency and by the Annual Reports of the Director of Emergency Conservation Work; those for enlisted Army and Navy men were obtained from the committee hearings on the Navy Department and Military Establishment Appropriation bills for 1937 and 1938. Inasmuch as no data were available on the subsistence costs and wages of workers in labor camps or of crews on vessels, the per capita figures for C. C. C. enrollees and for Army and Navy personnel, respectively, were used as applying roughly to these two groups as well.[3]

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[3] For more detailed list of sources of data and for fuller explanation of methods used, see preceding report, *Consumer Incomes in the United States*, pp. 90–92.

SECTION 5. CONSUMER SERVICES SUPPLIED BY PUBLIC AND PRIVATE AGENCIES

In addition to the expenditures made by families and single individuals out of their personal incomes, various types of services are supplied to the Nation's consumers by governmental and by private agencies. For example, the figure presented above for aggregate consumer disbursements for education represents only a small portion of the total outlays for this category, since the bulk of the Nation's education bill is met by Government outlays from taxes and other public revenue. For certain of the other consumption categories as well, public and private agencies supplement the outlays of consumers by providing services either free or at nominal cost. A brief discussion of such socially-financed consumption, therefore, is necessary at this point to clarify several of the expenditure figures already presented, and to complete the picture of national consumption.[1]

The major portion of this socially-provided segment of consumption is supplied by governmental agencies—Federal, State and local. In a secondary position are the various private organizations, such as churches, charities, private schools, and hospitals, that furnish services to the community or to groups of consumers. To a considerable extent, of course, these governmental and private expenditures are ultimately financed by consumers' disbursements for gifts and for direct or indirect taxes.

Education

Outlays of public and private agencies for education, supplementing the direct outlays of consumers, totalled approximately $2,392 million in 1935–36.[2] This amount included $2,191 million expended for public schools and $201 million for private schools. The estimated expenditures for education made directly by the Nation's consumers in this year, as shown in table 7, were $506 million. This figure, representing amounts paid by consumers for tuition, fees, books, and school supplies, amounted to little more than one-sixth of the Nation's total outlay for education. This proportion would be even smaller if account were taken of educational expenditures made by the Works Progress Administration and by certain other Federal agencies, which are not included in the $2,392 million total. It is obvious, therefore, that the extremely important role played by social expenditures must be borne in mind in interpreting both the average and aggregate figures for educational expense presented in this study.

Educational costs paid directly by families and single individuals were shown in table 5 to average $13 per consumer unit. Table 6 reveals that for consumer units in the lower and middle thirds of the Nation they average only $2 and $7, respectively, as compared with $30 for those in the upper third. Addition of public and private education expenditures to direct consumer outlays increases the average outlay for all income levels combined to almost six times $13, or to $73 per consumer unit.[3]

Since consumers in the lower income groups rely more heavily on the free services of public schools than those in the upper income groups, the average dollar outlays for these groups would be increased relatively more by the addition of public school expenditures than would the average outlays for those in the upper income groups. The share of the lower income groups in total educational expenditures of the Nation is therefore substantially greater than is suggested by tables 9 and 11, which cover only those outlays made directly by consumers.

Medical Care

Unlike education, a relatively small proportion of the national outlay for medical care is financed through social expenditures. Medical care supplied by governmental agencies in 1936 was estimated to have been $516 million, as compared with consumer disbursements for this category of $2,205 million. Thus consumer expenditures represented approximately 81 percent of the total outlay. This proportion becomes slightly lower—77 percent—if account is taken of the outlays for medical care supplied by philanthropy and industry, amounting to approximately $135 million.[4]

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[1] For discussion of expenditures of public and private institutions and quasi-institutional agencies for the subsistence and care of institutional residents, see preceding section. The discussion in the present section is limited, except as noted in footnotes 3 and 4, to services supplied to families and single individuals.

[2] U. S. Department of the Interior, Office of Education, *Statistical Summary of Education, 1935–36*. Total expenditures for schools reporting (including capital outlay) are estimated at $2,232 million for public schools and $418 million for private schools. Student fees, amounting to $41 million for public schools and $217 million for private schools (including an estimated $100 million for elementary and secondary private schools), have been deducted from these totals, since these items were included in the data on consumer expenditures presented in table 7.

[3] Some expenditures for institutional residents in schools for delinquents, and for the deaf, blind, and mentally deficient, are included in the estimated outlays for education by public and private agencies. No attempt has been made to exclude these amounts in calculating the increase in outlay for education per consumer unit, since they are more than counterbalanced by Works Progress Administration and other expenditures for education that are omitted from the $2,392 million total.

The average expenditure for medical care was estimated in part I to have been $56 per consumer unit for all income levels combined. The outlays for medical care by governmental and private agencies add approximately $17 for each of the 39,458,300 families and single individuals, giving a total expenditure of $73 per consumer unit, or $23 per capita. As various recent studies have indicated, this amount is definitely below that estimated as necessary to provide adequate medical care when purchased on an individual basis, and slightly below the minimum costs of adequate medical care purchased on a group basis.[5]

For the lower half of the Nation's families and single individuals—those with incomes of less than $1,070—expenditures for medical care were distinctly less than for the upper half, averaging only $26 per consumer unit as compared with $86.[6] However, it is even more true for medical care than for education that consumers in the lower income brackets receive a larger share of the socially-provided services than do the wealthier groups. But even if we assume that all of the $651 million of social expenditure was dispensed for medical service received by those in income groups below $1,070,[7] the average outlay for families and single individuals in this poorer half of the population would have amounted to only $59 per consumer unit, or $20 per capita.[8] Although more than twice the average outlay made from their personal incomes, this amount is still insufficient to cover the cost of adequate medical attention even when purchased collectively by groups rather than by individuals.

Reading

Consumer expenditures for reading were also supplemented by sizable governmental and private outlays for free library facilities. The magnitude of total operating expenditures of public libraries in 1934 has been estimated at $46 million,[9] about one-twelfth the estimated total amount paid out directly by consumers in 1935–36 for books, newspapers, magazines, and library fees.

Recreation

The variety of recreational facilities provided free or at nominal cost to the consuming public makes it difficult even to enumerate them, much less to ascertain the total value of social expenditures for this purpose.

The use of public parks, playgrounds, museums, and art galleries is clearly as much a part of recreation as are paid visits to the movies and the theatre. Similarly, we find open-air concerts, public swimming beaches, and community movies subsidized in whole or in part by public or private organizations. Works Progress Administration musical and dramatic productions provide free or partially-free entertainment to one part of the consuming public in the course of providing work for unemployed musicians and actors. The Forest Service improves the recreational facilities of our national forests as a part of the conservation and development of the timber resources of the Nation.

The commercially-sponsored radio program constitutes still another form of socially-financed recreation. Costs of such programs are ultimately collected from the consuming public, but for the individual consumer there is no immediate or necessary connection between his enjoyment of the program and its cost to him. To that extent, radio programs are comparable to recreational services provided by public and private agencies through taxation and philanthropic contributions.

It is clearly not feasible to ascribe a dollar value to the enjoyment derived by consumers from socially-provided recreational facilities, or even to measure that value in terms of the cost to the agencies providing them. Nevertheless, they must be recognized as supplementing or substituting for those other forms of recreation included in the personal expenditures of consumers.

Other Socially Financed Consumption

Up to this point we have considered, for the most part, those social expenditures that provide goods and services similar to those which some families and individuals purchase for themselves out of their private incomes. Thus, education, medical care, recreation and reading are ultimate consumption items appearing in the disbursements of most families. The social expenditures merely provide additional increments of these various items to some or all of the Nation's consumers.

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[4] Reed, L. S., *Health Insurance: The Next Step in Social Security*, p. 19. These estimated expenditures for medical care by governmental agencies and by philanthropy and industry include amounts spent for residents in some types of institutions and quasi-institutional groups. No attempt has been made to estimate the value of free medical services rendered by members of the medical profession. If allowance could be made for these services the total "outlay" for medical care would, of course, be appreciably increased. See also p. 47, footnote 6.

[5] See 76th Congress, 1st Session, House Document 120, *Message from the President of the United States transmitting the Annual Message on Health Security*, incorporating the Report of the Technical Committee on Medical Care of the Interdepartmental Committee to Coordinate Health and Welfare Activities, pp. 61–62.

[6] See tables 23A and 33A.

[7] This assumption is, of course, arbitrary, since sizable portions of social expenditures for medical care are allocated to public health services which benefit the community as a whole; and to hospitals which provide free services for the upper as well as the lower income groups.

[8] For method of estimating per capita outlay, see Appendix B, pp. 151–152.

[9] *Bulletin of the American Library Association*, Vol. 29, May 1935, pp. 252–253.

Beyond these obvious consumption services, there is a broad range of socially-financed activities that contribute to the general well-being of the consuming public but are only remotely connected with immediate consumption needs. Governmental expenditures for such fundamental social services as military defense, police and fire protection, flood control, and the building and maintenance of public roads, are indispensable to the general welfare of American consumers, but it would be unrealistic and futile to attempt to allocate their benefits to particular groups of consumers, or to add them to family expenditures as ultimate consumption items.

Between such basic governmental functions and the socially-provided items of medical care, education, recreation, and libraries, we find a multitude of other governmental functions which impinge to greater or less extent on the welfare of the individual consumer, and yet do not provide a measurable addition to his ultimate consumption needs. It should be apparent from the examples given above that there is no single criterion for the inclusion or exclusion under the heading of national consumption of the various outlays made by Government and private agencies. It is sufficient for our present purpose to call attention to the existence and to the multiplicity of such socially-financed activities, without attempting to determine just which ones should be considered as a part of the ultimate consumption of the Nation.

SECTION 6. COMPARISONS WITH OTHER CONSUMPTION STUDIES

The figures shown above on the total expenditures and savings of American consumers[1] invite comparison with results of other studies of national consumption. Unfortunately, no other study has as yet been made for 1935–36; and with the exception of one or two categories of disbursement, it has not been feasible as part of the present study to assemble material from industrial trade, census, and other governmental sources which might provide desirable checks on the 1935–36 estimates.[2]

Several estimates of the Nation's total consumption expenditures are available for earlier years, but only one of them relates to a year later than 1931. Four studies have traced back the national consumption pattern over a period of years. Lough presents separate estimates for nine of the years from 1909 to 1931,[3] Kuznets for each year from 1919 to 1935,[4] Jordan and Doane for each year from 1919 to 1930,[5] and Warburton for alternate years from 1919 to 1929.[6] Four other studies have dealt with the single year 1929—those made by Leven, Moulton, and Warburton of the Brookings Institution,[7] by Reed for the Committee on the Costs of Medical Care,[8] by Loeb,[9] and by Lynd.[10]

Only one of these sets of estimates, that of the Brookings Institution for 1929, has been built up from sample consumer data by ascertaining the consumption demands of various types of families and individual consumers at different income levels, and weighting the average figures in each group according to the importance of that group in the entire population. The other studies utilized statistical material from the Census of Manufactures, the Census of Distribution, the Department of Agriculture Yearbook, and a wide variety of Government reports and trade sources in arriving at "over-all" estimates of national expenditures for different types of goods and services.

In making comparisons with any of these studies, it is difficult to tell what part of such differences as may be found are attributable to differences in definition and classification of categories, what part to the different methods of building up the estimates, and what part to actual changes in the consumption of the American people from one year to another. It is, furthermore, difficult to judge how much of such actual changes may be attributable to trends in consumption habits, how much to absolute and relative price changes, and how much to differences in income distribution in the various years. Despite these difficulties, however, some light on the reliability of the various estimates may be obtained from such comparisons.

Estimates of the Brookings Institution

The comparison of the estimates of the National Resources Committee with those of the Brookings Institution is, in some respects, the most interesting, since the same general method and the same type of data were employed in both cases. Figures from the two studies have been brought together in table 13, where aggregate and percentage disbursements are shown for four broad categories of consumption, for gifts and direct personal taxes, and for savings. The basic data available in 1929 did not permit a more detailed classification of expenditures in the Brookings study.

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[1] In the following discussion, the estimates of the National Resources Committee refer to the aggregate consumption of all families and single individuals, exclusive of the consumption of institutional residents. Total expenditures would be increased by only 1 percent through the inclusion of the disbursements of institutional residents. See section 4 above and table 12. The estimates of the other studies quoted cover part or all of the institutional population.

[2] See above, pp. 57–58 for estimates of direct personal taxes; p. 53 for comparison of savings estimate with that prepared by R. W. Goldschmidt; and p. 47 for comparison of medical care expenditures.

[3] Lough, William H.; *High Level Consumption: Its Behavior; Its Consequences*, 1935, pp. 236–247.

[4] Kuznets, Simon; *National Income and Capital Formation, 1919–35*, National Bureau of Economic Research, 1937; and Kuznets, Simon; *Commodity Flow and Capital Formation*, Vol. 1, National Bureau of Economic Research, 1938.

[5] Jordan, Virgil, and Doane, R. R.; "The American Consumer Market," *The Business Week*, April 27 through September 7, 1932.

[6] Warburton, Clark; "Value of the Gross National Product and Its Components, 1919–29," *Journal of the American Statistical Association*, Vol. XXIX, December 1934, pp. 383–388.

[7] Leven, Maurice; Moulton, Harold G.; and Warburton, Clark; *America's Capacity to Consume*, the Brookings Institution, 1934, pp. 260–265. The estimates of income distribution presented in this volume were prepared by Maurice Leven, and those for average consumption and savings at various income levels by Clark Warburton. Estimates of total consumption expenditures and total savings were made by weighting Warburton's average consumption figures by Leven's figures on the number of families and unattached individuals at each income level.

[8] Reed, Louis S.; *The Ability to Pay for Medical Care*, a report prepared for the Committee on the Costs of Medical Care, 1933, pp. 19–26.

[9] Loeb, Harold and Associates; *The Chart of Plenty*, 1935, pp. 73–121.

[10] Lynd, Robert S.; "The People as Consumers," *Recent Social Trends in the United States*, 1935, Chapter XVII.

In comparing the results of the two studies, it should be kept in mind that the Brookings average patterns of spending were developed from a number of studies of family living covering different years between 1918 and 1930 and made by different agencies following different definitions and methods. None of these studies covered all income levels, or all major groups of consumers. It was necessary to build up the average patterns from the evidence presented by the most suitable of the existing studies. The resulting patterns do not, therefore, directly represent the year 1929 but were felt to be reasonably applicable to that year. Patterns were developed for only three component groups of consumers—farm families, nonfarm families, and single individuals.

TABLE 13.—*Comparison of estimates of aggregate consumer disbursements for 1935–36 with Brookings estimates for 1929* [1]

Category of disbursement [2]	Aggregate disbursements (in millions)		Percentage of aggregate disbursements		Percentage of aggregate consumption expenditures	
	Brookings, 1929	National Resources Committee, 1935–36	Brookings, 1929	National Resources Committee, 1935–36	Brookings, 1929	National Resources Committee, 1935–36
Current consumption:						
Food	$19,833	$16,865	21.4	28.5	26.9	33.6
Shelter and home maintenance [3]	21,498	16,213	23.1	27.3	29.1	32.3
Attire [4]	11,097	6,293	11.9	10.6	15.0	12.5
Other items [5]	[6] 21,440	10,843	[6] 23.1	18.3	29.0	21.6
All consumption items	[6] 73,868	50,214	[6] 79.5	84.7	100.0	100.0
Gifts	[6] 1,300	2,178	[6] 1.4	3.7	-------	-------
Taxes		[7] 889		[7] 1.5	-------	-------
Savings [8]	17,782	5,978	19.1	10.1	-------	-------
All items	92,950	59,259	100.0	100.0	-------	-------

[1] Leven, Maurice, Moulton, Harold G., and Warburton, Clark; *America's Capacity to Consume*, The Brookings Institution, 1934, pp. 96, 260, 261, 265.

[2] For explanation of items included in each category in the present report, see pp. 93–98.

[3] Includes housing, household operation, and furnishings.

[4] Includes clothing and personal care.

[5] This category is less comparable for the two studies than are the other categories of current consumption, because of differences in the items included. For discussion, see pp. 70–71.

[6] Separate estimates of direct taxes and contributions for philanthropic and charitable purposes are presented in the Brookings study only for families with incomes of $3,100 and over. Outlays for gifts and taxes made by families with incomes under $3,100 and by all unattached individuals are included under the heading "Other living" in the Brookings report, shown here as "Other items" of current consumption. Gifts made for purposes other than philanthropy by families with incomes of $3,100 and over are also included under "Other items."

[7] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

[8] A major difference in the savings estimates is to be found in the inclusion in the Brookings estimate of savings out of capital gains from the sale of securities and other assets, an item which is not included in the other study. $6.2 billion of such capital gains were included in the Brookings income estimates.

Savings

One of the most striking differences between the Brookings figures and those of the National Resources Committee lies in the estimates for savings. The Brookings estimate amounts to $17.8 billion, or 19.1 percent of income, as compared with the $6.0 billion or 10.1 percent of income shown in the present study. The Brookings figure, however, includes savings out of capital gains realized from the sale of securities and other assets, while that of the National Resources Committee does not. Even when allowance is made for this difference in coverage by subtracting from the Brookings savings figure all of the estimated $6.2 billion of capital gains in 1929,[11] the adjusted savings estimate is still nearly twice as large as the estimate for 1935–36.

How much, it may be questioned, are these results due to differences in the estimates of average savings at various income levels, and how much to differences in the Brookings and National Resources Committee's income distributions in the 2 years? An indication of the relative importance of these two factors may be obtained, first, by comparing the average percent of income saved at each income level as estimated in the two studies, and secondly, by comparing the two income distributions.

In neither study, as previously pointed out,[12] do positive savings appear in the average spending pattern of families until the $1,250 income level is reached. Above this figure the estimates of savings appear to be surprisingly close. The Brookings averages run somewhat above those of the National Resources Committee up to the income level $3,000–$4,000, correspond exactly at this level, and run somewhat below the National Resources Committee averages above $4,000. For combined income classes above $20,000, the savings percentages (both based mainly on extrapolation) are practically identical—50.6 percent in the Brookings study and 50.7 percent in the present report—but since the Brookings study indicates an average income for the $20,000 and over group considerably higher than the average income shown by the present study for 1935–36, it is clear that the percentages of income saved at successive income levels above $20,000 are, in general, somewhat lower in the Brookings than in the present estimates.

The correspondence of the estimates is perhaps somewhat more apparent than real, since it has not been possible to make the adjustment for capital gains saved at the different income levels. Logically, it would be expected that the inclusion of realized capital gains in income would result in higher average savings in the Brookings study, at least at the upper income levels where such gains become of appreciable magnitude.[13] However, examination of the data on which the 1929 patterns were based suggests that the savings percentages, even at the top income levels, were actually affected very little by the inclusion of realized capital gains as an item of current income.[14]

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[11] See p. 70 below, footnote 13.

[12] See above, pp 19–20.

The similarity of the estimates in the two studies therefore appears to reflect a genuine similarity in habits of saving in the 2 years, which is somewhat surprising in view of the changes between 1929 and 1935–36 in the cost of living and other factors.[15]

It is clear, however, that cost of living adjustments would not be sufficient to throw the two spending patterns greatly out of line. The Brookings $1,000 to $1,500 level, for example, would correspond in terms of real income with an $813 to $1,220 level in 1935–36 and the $3,000 to $4,000 level in 1929 with a $2,439 to $3,252 level in the latter year.[16] The general effect of adjusting for differences in real income would therefore be to bring the estimates at the upper income levels into somewhat closer agreement, but to widen the discrepancy at the lower income levels.

This general correspondence of the Brookings and the National Resources Committee patterns of saving at different income levels suggests that the difference in the national aggregates of savings must be attributed, for the most part, to differences in the number of families at the higher income levels—that is, to differences in the income distributions shown by the two studies. Comparison of the two income distributions supports this conclusion, revealing a distinctly larger proportion of families and single individuals in the higher income levels in the Brookings estimates for 1929.

Direct evidence of the significant effects of this difference in income distribution on the national savings aggregates arrived at in the two studies may, moreover, be obtained by weighting the Brookings average savings figures at the different income levels by the income distribution estimated for 1935–36 by the National Resources Committee.

This procedure gives a figure of $6.4 billion as the estimate of national aggregate savings that would have been obtained for 1935–36 if the percentage figures for savings shown in the Brookings patterns had been used instead of the percentage figures shown in the consumption patterns developed by the National Resources Committee. This $6.4 billion represents 10.7 percent of consumer income in 1935–36, and compares very closely with the $6 billion and 10.1 percent of income shown by the present report.[17]

Gifts and Direct Personal Taxes

With the data at its disposal, the Brookings Institution did not find it possible to build up separate estimates of aggregate gifts and aggregate direct personal tax payments on the basis of average figures for each income level, as was done by the National Resources Committee. The Brookings report does, however, present a combined estimate of $1.3 billion for direct taxes and philanthropic contributions made in 1929 by families in income classes above $3,100. This estimate, shown in table 13, was assumed to account for the preponderant share of total family outlays for direct taxes and for gifts for philanthropic and charitable purposes.[18] No estimates were made of gifts and direct personal taxes paid by families in the lower income groups or by single individuals, or of gifts made for purposes other than philanthropy by families with incomes above $3,100. In analyzing the budget studies upon which the spending patterns were based, such outlays were included by the Brookings Institution in the category "other living expenses."

It is probable, therefore, that the figure of $21.4 billion shown for the Brookings study in table 13 under "other items of current consumption" covers an appreciable amount of outlay properly classified under the heading of gifts and personal taxes, but it is impossible to determine the exact amount of these disbursements.

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[13] Capital gains would presumably affect the savings, but not the expenditure figures on the schedules used as a basis for the Brookings spending patterns. This does not imply, of course, that all of the amounts received by families as realized capital gains are saved; some of such gains are undoubtedly used for current consumption and for gifts and personal taxes. But the effect of these receipts on consumer expenditures has already been recorded on the schedules obtained from the sample of families studied, and the treatment of capital gains in the subsequent analysis of the data does not change these expenditure figures. Similarly, of course, capital losses, if deducted from income, are deducted also from the savings figures shown on the schedules.

Thus the inclusion of capital gains as an item of income would (theoretically, at least) increase the national estimate of consumer income and that of consumer savings by the same total amount, but would have no effect on the national estimates of consumer expenditures derived from the data.

The average expenditure pattern at the higher income levels, where most of the capital gains occur, would, however, be affected by the inclusion of capital gains in income, since the group of families at a given income level would be changed.

The change in average expenditures at the higher income levels, in conjunction with the change in the number of families in these levels, would necessarily be just sufficient to keep the national aggregate of expenditures constant. Similarly, the change in the average savings at the higher income levels, in conjunction with the change in the weighting of these levels, would affect the national aggregate of savings just sufficiently to cover the net aggregate receipts of realized capital gains.

[14] Only one of the studies of family expenditures available as a basis for the Brookings average spending patterns included a significant number of families with capital gains.

[15] While the decrease in the cost of living would permit increased savings, the rise in the effective surtax rates between 1929 and 1935–36 might well have tended toward a decrease in the percentage of income saved at the very high income levels.

[16] Data from the Cost of Living Division, U. S. Bureau of Labor Statistics, indicate a drop in the cost of living index from 99.5 in 1929 to 80.9 in 1935–36. The index for 1929 appears in *Changes in the Cost of Living*, December 15, 1937. The index for 1935–36 is based on a special computation made by the Bureau.

[17] The extent to which the difference in aggregate savings is due to differences in income distribution rather than to differences in average patterns of savings may also be demonstrated by the converse procedure. When the National Resources Committee average savings figures at different income levels are applied against the Brookings income distribution for 1929, the resulting aggregate savings amount to $20.1 billion, or 21.6 percent of the 1929 income—slightly higher than the 19.1 percent shown in the Brookings report.

[18] See *America's Capacity to Consume*, pp. 95–96.

Consumption Expenditures

The Brookings estimate of $73,868 million for current consumption items in 1929 exceeds by almost $24 billion the estimate of current consumption expenditures in 1935–36 made by the National Resources Committee. Even if we made an allowance of $2 or $3 billion in the Brookings estimates for those gifts and personal taxes that are included in the "other items" category, the Brookings figure would still be in the neighborhood of $21 billion greater than the estimate of $50 billion expenditures for current consumption in 1935–36.[19]

The Department of Commerce estimates of national income indicate that the total income produced was about $22 billion larger in 1929 than in 1935–36,[20] so that disbursements for all current consumption would naturally be greater in 1929, despite the fact that the proportion of income saved was probably somewhat larger in 1929 than in 1935–36. Table 13 indicates that aggregate disbursements for each of the four categories of goods and services were also greater in 1929, but not proportionately greater. This becomes evident when comparison of the estimates is made in terms of the percentage allocation of expenditures to the different categories of consumption.

The Brookings estimates show smaller percentages of aggregate consumption expenditures devoted to food and to shelter and home maintenance, and somewhat higher percentages devoted to attire and to other items. The pronounced difference in the estimated percentage of aggregate expenditure devoted to "other items"—29 percent as compared with 22 percent—can be explained only partially by the inclusion of some gifts and personal taxes in the Brookings estimate for this category.

Changing price levels and price relationships may well account for part of the changes in the proportion of aggregate disbursements going to the various classes of goods and services in the 2 years, but our knowledge of how changes in relative prices affect the way consumers spend a given income is so limited that it is impossible to make any quantitative adjustments of the estimates to allow for such price changes.

Similarity of Average Spending Patterns in 1929 and in 1935–36

The question again arises as to the extent to which the differences in the two sets of aggregate expenditures are due, on the one hand, to differences in the average expenditure patterns at the various income levels, and, on the other hand, to differences in the magnitude and distribution of consumer income in the 2 years.

As in the case of savings, average expenditures at each income level in the Brookings figures are found to diverge very little from the patterns for identical income levels in the present study. Despite differences in the cost of living and other factors in the 2 years, the general level and slopes of the income-expenditure curves for the four categories of current consumption appear to be remarkably similar.

In the case of the spending patterns for families, we find a very close similarity for the income classes between $3,000 and $5,000, with some divergence in the patterns for the low and the high income levels. Even these are not markedly different, except perhaps for incomes below $1,000.

For the income class $3,000 to $4,000, the Brookings estimate shows 24 percent of income devoted to food, 25 percent to shelter, 12 percent to attire, and 24 percent to "other living," including gifts and personal taxes. The corresponding pattern from the present study shows 23 percent of income devoted to food, 27 percent to shelter, 11 percent to attire, and 24 percent to "other living," also including gifts and personal taxes. As indicated above, the proportion of income saved was identical in the two studies, accounting for the remaining 15 percent.

The Brookings patterns for the income levels below $3,000 show somewhat higher percentages of income used for food and smaller percentages for shelter than do the National Resources Committee patterns for the same income levels. For the upper income levels, the situation is reversed, with the Brookings patterns showing relatively lower percentages of income used for food and relatively higher percentages for shelter. Expenditures for attire occupy a somewhat more important place in the Brookings patterns for all except the highest income levels—ranging up to 15 percent of total income for families with incomes below $1,000. The present study shows families in this income class spending only 12 percent of income for clothing and personal care. Expenditures for other living are somewhat less for the lower income classes in the Brookings pattern than in the present study, and somewhat more for the upper income classes.

The spending patterns for single individuals do not show as close an agreement as do the family patterns presented in the two studies. This is not surprising, in view of the almost complete absence of consumption data for single individuals in 1929, and the limitations of the somewhat scanty data available for constructing the individual spending patterns in the present report.

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[19] Some allowance should also be made for the fact that the Brookings estimates include the expenditures of persons living in quasi-institutional groups. In the opposite direction, allowance might be made, of course, for the increase in the total number of consumers between 1929 and 1935–36.

[20] See Nathan, Robert R., *Income in the United States, 1929–37*, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, November 1938, tables 1 and 3. For estimate of income produced during the 12-month period from July 1935 through June 1936, see *Consumer Incomes in the United States*, p. 34.

Even so, the income-expenditure curves for food, shelter, and other items are reasonably close. The most marked differences between the two sets of estimates occurs in the expenditures for attire, which are conspicuously higher in the Brookings estimates for every income level.

Further evidence of the similarity of the spending patterns in the two studies is obtained by using the same procedure that was used in comparing the aggregate savings estimates—that is, by weighting the average spending patterns from the Brookings study by the 1935–36 income distribution and comparing the resulting national figures with the national aggregate expenditures obtained in the present study. This procedure yields estimates for 1935–36 showing 29.5 percent of total consumer income disbursed for food, 24.9 percent for shelter, 13.7 percent for attire, and 21.2 percent for all other consumption items and for gifts and personal taxes. These percentages are quite similar to those of the present study, based on 1935–36 patterns of spending; as summarized in table 13, the present estimates show 28.5 percent of total consumer income disbursed for food, 27.3 percent for shelter, 10.6 percent for attire, and 23.5 percent for all other items except savings.[21]

Although conclusions drawn from these comparisons must be of a tentative nature, the implications suggested by the similarity of the spending patterns in the two studies are of real importance. It appears probable, from the evidence given, that the way consumers spend a given income changes relatively little over a period of years, so that variations from year to year in the total consumer expenditures of the Nation are primarily due to changes in the distribution of consumers by income level. Even changes in price levels and price relationships, which have been ignored in these comparisons, apparently have only a limited effect on the percentage allocation of income among the major categories of disbursement.

Effect of Differences in Consumer Incomes in the Two Years

While it is clear from the above comparisons that differences in the income distributions shown in the two studies account for much of the differences in the national expenditure estimates, it is not possible to attribute the entire difference in the income estimates themselves to actual changes in consumer incomes between 1929 and 1935–36. It is evident from a careful comparison of the two income studies that some of the differences in results must be attributed to lack of agreement in methodology.[22] A large part of the differences, however, undoubtedly reflects an actual difference in the distribution of consumers by income level in the 2 years.

The fact that total national income in 1929 was much larger than total national income in 1935–36 would of itself cause some difference in the national aggregate expenditures for the 2 years, even though the average pattern of spending at each income level and the degree of equality of income distribution—that is, the proportion of the total income received by a given proportion of the Nation's consumers—remained the same.[23]

Consumer income in 1929 was estimated in the Brookings study at almost $93 billion. In terms of 1935–36 prices, this would have meant a total consumer income of approximately $75 billion dollars. Assuming there had been a total consumer income of this size in 1935–36, with other factors remaining unchanged, the percentages of income going to expenditures for food, shelter, and attire, would have been somewhat lower than the percentages shown in table 13, and the percentages going to other consumption items, gifts and personal taxes, and savings would have been greater. With the exception of expenditures for attire, these variations would have been in such a direction as to account for at least part of the differences found between the 1929 and the 1935–36 estimates.[24]

Unfortunately, it is impossible to judge whether any of the differences in national consumption expenditures found in the two studies can be attributed to changes in the proportionate distribution of income rather than to changes in the total amount of income distributed. The Brookings and the National Resources Committee income estimates are not sufficiently comparable to yield evidence on this point, and no data are available from any other source to indicate whether the disparity in the division of total income among different groups of consumers was greater or less in 1935–36 than in 1929.

Estimates by Reed for the Committee on Costs of Medical Care

A second important study of national consumption in 1929 is that prepared by Louis S. Reed for the report of the Committee on the Costs of Medical Care. These estimates, based chiefly upon data from Census and trade sources, covered about 25 different categories of consumer disbursement. The results have been grouped and summed in table 14 to correspond as closely as possible to the categories listed there. These estimates derived from "over-all" industrial data may thus be compared with the Brookings estimates for 1929 derived from sample consumption data, and the Lough estimates for the same year, based on industrial data, as well as with the estimates of the National Resources Committee for 1935–36.

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[21] Conversely, when the National Resources Committee expenditure patterns are used with the Brookings income distributions, the resulting percentages—20.9 percent for food, 23.4 percent for shelter, 9.6 percent for attire, and 24.5 percent for other current consumption—compare with the following corresponding Brookings percentages for 1929—21.4, 23.1, 11.9, and 24.5.

[22] See *Consumer Incomes in the United States*, p. 34.

[23] An attempt has been made in Appendix C to calculate the effects on national expenditures of differences in the size of total consumer income, other factors remaining the same. See section 2 of Appendix C.

[24] This adjustment of the national income to allow for broad differences in the cost of living between 1929 and 1935–36 ignores, of course, the question of changing price relationships mentioned on p. 71 above.

Reed's estimate of savings, which does not include savings from capital gains, is somewhat less than the Brookings figure even if we deduct from the latter estimate all of the estimated $6.2 billion of capital gains received by consumers in that year.

The savings figure given in Reed's estimates indicates that total consumer savings were equal to 11 percent of total income in 1929, a figure that conforms closely to the 10.5 percent shown by Lough for the same year, and the 10.1 percent shown by the National Resources Committee estimates for 1935–36. These three sets of estimates show almost identical percentages of income devoted to direct personal taxes—1.5 percent, 1.3 percent, and 1.5 percent, respectively.

The Reed estimate for gifts, amounting to $992 million or 1.1 percent of income, includes only expenditures for "religion," and is therefore more nearly comparable with the National Resources Committee estimate of contributions made by families to the church and other religious organizations than to the figures for total gifts. It is interesting to note that this estimate, available only for families, likewise amounts to 1.1 percent of the estimated total family income in 1935–36.[25]

As tables 13 and 14 indicate, the estimates made by Reed of dollar expenditures in 1929 for three of the broad categories of current consumption are remarkably similar to the Brookings and Lough estimates for the same year. Reed shows greater expenditures for "other items" of consumption, but this may be accounted for by the fact that there is included in this figure a residual sum of $4.3 billion which was not allocated to specific items of disbursement but was obtained by subtracting from the independently obtained estimate of total national income the total expenditures for the 24 categories of disbursement for which separate estimates were made.[26] When this amount is deducted, the Reed estimate of total current consumption plus gifts is very near the Brookings estimate—or $74,081 million as compared with $73,868 million.

Estimates by Lough

In his book, *High Level Consumption*, William H. Lough presents estimates of expenditures of American consumers for some 250 separate items for 9 of the years from 1909 to 1931. The figures, like those prepared by Reed, were based primarily on over-all industrial data. The results for 1929 have been regrouped so that the major categories of disbursement might conform as nearly as possible to the classification observed by the National Resources Committee estimates for 1935–36. The two sets of estimates are compared in table 14.

TABLE 14.—*Comparison of estimates of aggregate consumer disbursements for 1935–36 with two estimates for 1929* [1]

Category of disbursement [2]	Aggregate disbursements (in millions)			Percentage of aggregate disbursements		
	Reed 1929	Lough 1929	National Resources Committee 1935–36	Reed 1929	Lough 1929	National Resources Committee 1935–36
Current consumption:						
Food:						
Purchased	--------	$20,105	$14,753	--------	22.6	24.9
Home-produced	--------	1,909	2,112	--------	2.2	3.6
All food	$19,351	22,014	16,865	21.3	24.8	28.5
Shelter and home maintenance:						
Housing:						
Money expense	--------	7,221	7,125	--------	8.1	12.0
Imputed value	--------	4,424	2,381	--------	5.0	4.0
All housing	13,060	11,645	9,506	14.3	13.1	16.0
Household operation	5,142	7,021	5,285	5.6	7.9	8.9
Furnishings	4,594	4,517	1,422	5.1	5.1	2.4
All shelter and home maintenance	22,796	23,183	16,213	25.0	26.1	27.3
Attire:						
Clothing	9,911	10,615	5,261	11.0	11.9	8.9
Personal care	1,078	1,292	1,032	1.2	1.5	1.7
All attire	10,989	11,907	6,293	12.2	13.4	10.6
Other items:						
Automobile	7,882	7,158	3,781	8.7	8.0	6.4
Other transportation	2,762	2,498	884	3.1	2.8	1.5
Medical care	3,068	2,904	2,205	3.4	3.2	3.7
Recreation	3,420	3,441	1,643	3.8	3.9	2.8
Tobacco	1,600	1,688	966	1.8	1.9	1.6
Reading	888	804	551	.9	.9	.9
Education	898	680	506	.9	.8	.9
Miscellaneous [3]	4,727	415	307	5.3	.5	.5
All other items	25,245	19,588	10,843	27.9	22.0	18.3
All consumption items	78,381	76,692	50,214	86.4	86.3	84.7
Gifts	[4] 992	1,712	2,178	[4] 1.1	1.9	3.7
Taxes	1,417	1,196	[5] 889	1.5	1.3	[5] 1.5
Savings	10,000	9,300	5,978	11.0	10.5	10.1
All items	90,790	88,900	59,259	100.0	100.0	100.0

[1] Reed, Louis S., *The Ability to Pay for Medical Care*, a report prepared for the Committee on Costs of Medical Care, 1933, p. 20, and Lough, W. H., *High Level Consumption*, 1935, pp. 236–247. For purposes of this comparison the items shown by Lough and by Reed have been reclassified so as to make the groupings conform as closely as possible to the definitions used in the present report. In some cases this involved dividing Lough's items into 2 or 3 parts and reallocating them to the appropriate categories. The division was necessarily on an arbitrary basis. The total for all items as shown by Lough (p. 236) and the total shown above differ slightly because the item of union and other association dues, considered as an occupational expense in the present report, has been omitted.

[2] For explanation of items included in each category in the present report, see pp. 93–98.

[3] This category is less comparable for the 3 studies than are the other categories of current consumption, because of differences in the items included. For discussion, see pp. 70–71 and 73.

[4] Reed's estimate for gifts includes only gifts for "religion."

[5] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

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[25] See table 10A.

[26] See *The Ability to Pay for Medical Care*, table 3, pp. 20 and 103.

Lough's estimate of aggregate income in 1929 is somewhat lower than the estimates shown for Reed and for the Brookings study, but is somewhat higher than either of these estimates if we adjust the Reed figure by deducting the residual sum of $4.3 billion which is not allocated to specific items of disbursement, and the Brookings figure by deducting the $6.2 billion of capital gains.[27]

Savings in 1929 are estimated by Lough at $9,300 million as compared with the $10,000 million estimate of Reed. The portion of total income saved is thus 10.5 percent, about the same percentage as is shown by Reed, and also by the National Resources Committee estimates for 1935–36. The estimate of direct taxes presented by Lough is somewhat less than the Reed estimate, but represents about the same percent of total income as is shown by the other studies.

Lough's estimate of gifts includes gifts to philanthropic and charitable agencies as well as religion, and is naturally much higher than the estimate given by Reed. The National Resources Committee estimate for total gifts in 1935–36 is still higher, since it includes gifts exchanged among consumers, as well as gifts to religious and philanthropic organizations. Since these gifts represent only transfers of income among consumers, they result inevitably in double counting in the national expenditures totals. Such transfers of income naturally do not appear in the national aggregates derived from census data and similar sources.

The estimate made by Lough of total consumption expenditures falls between the corresponding estimates presented for Brookings and for Reed, but if the estimates are adjusted to cover the same items we find that Lough's estimate is higher than either of the other estimates for 1929. The discrepancy is due mainly to Lough's higher estimate for food. His estimates for shelter and attire are also slightly higher, but the differences are not striking.

When we compare the various sets of estimates in terms of the percentage allocation of disbursements, it appears that the Lough estimates are most nearly in accord with those of the National Resources Committee. Table 14 presents a detailed comparison of the Reed, Lough, and National Resources Committee estimates in terms of the percentages of aggregate disbursements for various items of current consumption, as well as for gifts, personal taxes, and savings. Lough's and Reed's estimates, it will be observed, show somewhat smaller proportions of income devoted to food, housing, and household operation, and somewhat larger proportions devoted to clothing, furnishings, automobile, other transportation, recreation, and tobacco.[28] As noted earlier, the direction of many of these differences between the 1929 and the 1935–36 spending patterns is in line with what might be expected from the differences in the size of the national income in the 2 years. With the smaller national income in 1935–36, larger proportions of income would be used for necessity items such as food and housing, while somewhat smaller proportions would be spent for such dispensable items as automobiles and recreation.[29]

Comparison with the results of the other studies of national consumption for 1929 [30]—those of Kuznets, Jordan and Doane, Loeb, Lynd, and Warburton—involve even more difficulties than those already undertaken, because of the many variations in the definitions and classification of items followed. No attempt will be made, therefore, to present the results of such comparisons.[31]

The comparisons of the results of the present study of national consumption with those of the Brookings Institution and of Reed and Lough may appear to raise questions rather than to answer them. Yet despite the difficulties in the way of satisfactory comparisons, the discussion presented above provides a general indication of the reliability of the results so far obtained in this relatively new field of statistical inquiry. It suggests also, of course, the need for continuing research in the field.

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[27] See pp. 69 and 70 above.

[28] As indicated above, tobacco expenditures in 1935–36 are probably somewhat underestimated in this report. See footnote 6a, p. 47.

[29] See Appendix C, section 2.

[30] See p. 68 above.

[31] Comparisons with the results of some of these studies, notably those of Kuznets for 1935, will be included in a subsequent report on family expenditures, where estimates for a more detailed list of goods and services will be presented.

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APPENDIX A

TABLE 1A.—*Aggregate outlay of American consumers*[1] *in 7 income groups for consumption, savings, and gifts and personal taxes,*[2] *1935–36*

Income group	Families and single individuals		Aggregate income		Aggregate outlay for—					
					Current consumption		Savings		Gifts and personal taxes [3]	
	Number	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Lower third—under $780	13,152,766	33.3	$6,190	10.4	$7,226	14.4	−$1,207	−20.2	$171	5.6
Middle third—$780–$1,450	13,152,767	33.3	14,154	23.9	13,890	27.7	−252	−4.2	516	16.8
Upper third—$1,450 and over:										
$1,450–$2,000	5,973,765	15.2	10,035	16.9	9,164	18.3	462	7.7	409	13.3
$2,000–$3,000	4,434,085	11.2	10,577	17.9	9,043	18.0	1,069	17.9	465	15.1
$3,000–$5,000	1,818,269	4.6	6,644	11.2	5,125	10.2	1,176	19.6	343	11.2
$5,000–$15,000	748,590	1.9	5,839	9.9	3,529	7.0	1,897	31.8	413	13.5
$15,000 and over	178,058	.5	5,820	9.8	2,237	4.4	2,833	47.4	750	24.5
Total—upper third	13,152,767	33.4	38,915	65.7	29,098	57.9	7,437	124.4	2,380	77.6
All income groups	39,458,300	100.0	59,259	100.0	50,214	100.0	5,978	100.0	3,067	100.0

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 2A.—*Average outlay of American consumers*[1] *in 7 income groups for consumption, savings, and gifts and personal taxes,*[2] *1935–36*

Income group	Families and single individuals		Average income per consumer unit	Average outlay per consumer unit for—			Percentage of income for—		
	Number	Percent		Current consumption	Savings	Gifts and personal taxes [3]	Current consumption	Savings	Gifts and personal taxes [3]
Lower third—under $780	13,152,766	33.3	$471	$550	−$92	$12	116.7	−19.5	2.8
Middle third—$780–$1,450	13,152,767	33.3	1,076	1,056	−19	39	98.1	−1.8	3.7
Upper third—$1,450 and over:									
$1,450–$2,000	5,973,765	15.2	1,680	1,534	77	69	91.3	4.6	4.1
$2,000–$3,000	4,434,085	11.2	2,385	2,039	241	105	85.5	10.1	4.4
$3,000–$5,000	1,818,269	4.6	3,654	2,818	647	189	77.1	17.7	5.2
$5,000–$15,000	748,590	1.9	7,800	4,714	2,534	552	60.4	32.5	7.1
$15,000 and over	178,058	.5	32,686	12,563	15,911	4,212	38.4	48.7	12.9
Average—upper third	13,152,767	33.4	2,959	2,212	566	181	74.8	19.1	6.1

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 3A.—*Average expenditures of American consumers*[1] *in 7 income groups for main categories of consumption,*[2] *1935–36*

Income group	Average expenditure per consumer unit for—															
	All items	Food	Shelter				Clothing	Transportation		Medical care	Recreation	Personal care	Tobacco	Reading	Education	Other items
			Total	Housing	Household operation	Furnishings		Automobile	Other							
Lower third—under $780	$550	$236	$178	$115	$54	$9	$47	$16	$11	$20	$9	$12	$10	$6	$2	$3
Middle third—$780–$1,450	1,056	404	335	199	108	28	102	57	19	41	28	22	23	12	7	6
Upper third—$1,450 and over:																
$1,450–$2,000	1,534	522	490	283	157	50	156	121	25	68	49	32	32	17	12	10
$2,000–$3,000	2,039	626	650	370	212	68	223	201	30	94	75	43	40	22	22	13
$3,000–$5,000	2,818	773	920	513	315	92	337	299	40	138	119	56	50	29	39	18
$5,000–$15,000	4,714	1,047	1,615	899	564	152	607	537	77	250	243	91	65	44	98	40
$15,000 and over	12,563	2,044	4,391	2,437	1,612	342	1,775	1,460	421	724	781	197	118	101	444	107
Average—upper third	2,212	642	720	408	240	72	251	215	37	106	89	44	40	23	30	15

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

Table 4A.—*Percentage of income spent by American consumers [1] in 7 income groups for main categories of consumption,[2] 1935–36*

Income group	Percentage of income for—														
	All items	Food	Shelter				Clothing	Transportation		Medical care	Recreation	Personal care	Tobacco	Reading	Education	Other items
			Total	Housing	Household operation	Furnishings		Automobile	Other							
Lower third—under $780	116.7	50.2	37.6	24.4	11.4	1.8	10.0	3.3	2.4	4.3	1.8	2.5	2.2	1.3	0.5	0.6
Middle third—$780–$1,450	98.1	37.5	31.1	18.5	10.0	2.6	9.5	5.3	1.7	3.9	2.6	2.1	2.1	1.2	.6	.5
Upper third—$1,450 and over:																
$1,450–$2,000	91.3	31.1	29.2	16.8	9.4	3.0	9.3	7.2	1.5	4.0	2.9	1.9	1.9	1.0	.7	.6
$2,000–$3,000	85.5	26.3	27.3	15.5	8.9	2.9	9.4	8.4	1.3	3.9	3.1	1.8	1.7	.9	.9	.5
$3,000–$5,000	77.1	21.2	25.1	14.0	8.6	2.5	9.2	8.2	1.1	3.8	3.2	1.5	1.4	.8	1.1	.5
$5,000—$15,000	60.4	13.4	20.7	11.5	7.2	2.0	7.8	6.9	1.0	3.2	3.1	1.2	.8	.6	1.2	.5
$15,000 and over	38.4	6.2	13.4	7.5	4.9	1.0	5.4	4.5	1.3	2.2	2.4	.6	.4	.3	1.4	.3
Average—upper third	74.8	21.7	24.3	13.8	8.1	2.4	8.5	7.2	1.3	3.6	3.0	1.5	1.4	.8	1.0	.5

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98.

Table 5A.—*Percentage of total expenditures of American consumers [1] in 7 income groups for main categories of consumption,[2] 1935–36*

Income group	Percentage of expenditures for—														
	All items	Food	Shelter				Clothing	Transportation		Medical care	Recreation	Personal care	Tobacco	Reading	Education	Other items
			Total	Housing	Household operation	Furnishings		Automobile	Other							
Lower third—under $780	100.0	42.9	32.4	20.9	9.8	1.7	8.5	2.9	2.0	3.6	1.7	2.2	1.8	1.1	0.4	0.5
Middle third—$780–$1,450	100.0	38.2	31.7	18.8	10.2	2.7	9.6	5.4	1.8	3.9	2.7	2.1	2.2	1.1	.7	.6
Upper third—$1,450 and over																
$1,450–$2,000	100.0	34.0	31.9	18.4	10.2	3.3	10.2	7.9	1.6	4.4	3.2	2.1	2.1	1.1	.8	.7
$2,000–$3,000	100.0	30.7	31.9	18.2	10.4	3.3	10.9	9.8	1.5	4.6	3.7	2.1	2.0	1.1	1.1	.6
$3,000–$5,000	100.0	27.4	32.7	18.2	11.2	3.3	12.0	10.6	1.4	4.9	4.2	2.0	1.8	1.0	1.4	.6
$5,000–$15,000	100.0	22.2	34.3	19.1	12.0	3.2	12.9	11.4	1.6	5.3	5.2	1.9	1.4	.9	2.1	.8
$15,000 and over	100.0	16.3	34.9	19.4	12.8	2.7	14.1	11.6	3.4	5.8	6.2	1.6	.9	.8	3.5	.9
Average—upper third	100.0	29.0	32.6	18.4	10.9	3.3	11.3	9.7	1.7	4.8	4.0	2.0	1.8	1.0	1.4	.7

[1] Includes all families and single individuals, but excludes residents in institutional groups.

[2] For explanation of items included in each category, see pp. 93–98

Table 6A.—*Percentage of income spent by American families for main categories of consumption,[1] by income level, 1935–36*

Income level	Percentage of income for—																	
	All items	Food			Housing			Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
		Total	Purchased	Home produced[2]	Total	Money expense	Imputed value[2]												
Under $500	149.3	65.0	50.0	15.0	28.9	19.9	9.0	18.2	11.2	4.8	7.1	1.9	2.9	2.9	2.9	1.0	1.3	0.6	0.6
$500–$750	112.7	49.5	36.5	13.0	19.9	13.5	6.4	13.5	8.9	4.5	4.7	1.7	2.5	2.2	2.3	.8	.9	.5	.8
$750–$1,000	104.6	43.5	34.3	9.2	18.5	13.2	5.3	12.1	8.9	5.0	4.3	1.9	3.1	2.1	2.2	1.0	1.0	.5	.5
$1,000–$1,250	100.6	38.7	31.9	6.8	18.1	12.7	5.4	11.6	8.9	6.3	4.2	2.2	3.4	2.1	2.0	1.0	1.0	.6	.5
$1,250–$1,500	96.5	35.7	29.5	6.2	16.9	11.6	5.3	10.9	9.0	6.8	4.2	2.3	3.5	2.0	2.0	1.0	1.0	.7	.5
$1,500–$1,750	93.8	32.7	27.9	4.8	16.6	11.5	5.1	10.3	9.1	7.6	4.4	2.6	3.5	2.0	1.8	1.0	.9	.7	.6
$1,750–$2,000	92.1	30.5	26.8	3.7	16.5	11.8	4.7	10.2	9.0	8.4	4.3	2.7	3.7	1.9	1.8	1.0	.9	.8	.4
$2,000–$2,500	88.6	27.8	24.9	2.9	15.7	10.9	4.8	9.6	9.3	9.0	4.1	2.8	3.4	1.9	1.7	1.0	.9	.9	.5
$2,500–$3,000	84.8	25.4	22.8	2.6	14.9	10.1	4.8	9.6	9.4	8.9	4.0	3.0	3.1	1.8	1.5	.9	.8	1.1	.4
$3,000–$4,000	80.4	22.7	20.5	2.2	14.3	9.6	4.7	9.4	9.3	8.5	3.9	3.1	3.0	1.6	1.4	.9	.8	1.1	.4
$4,000–$5,000	74.6	19.4	17.9	1.5	13.0	8.6	4.4	9.1	9.3	8.7	3.6	3.1	2.5	1.5	1.2	.8	.7	1.3	.4
$5,000–$10,000	64.8	15.1	14.1	1.0	11.4	7.5	3.9	8.5	8.1	7.6	3.6	3.0	2.3	1.3	.9	.7	.6	1.2	.5
$10,000–$15,000	53.7	10.7	10.3	.4	10.6	7.0	3.6	6.7	7.3	6.0	2.0	3.0	2.0	1.0	.7	1.0	.5	2.0	.2
$15,000–$20,000	52.7	10.3	10.0	.3	8.6	5.2	3.4	6.8	7.3	5.3	2.4	2.8	1.6	.9	.6	2.3	.4	3.1	.3
$20,000 and over	35.4	5.4	5.3	.1	6.5	3.5	3.0	5.2	5.2	4.2	2.0	2.2	1.1	.6	.3	1.0	.3	1.2	.2
All levels	85.6	28.8	24.4	4.4	15.3	10.4	4.9	10.0	8.7	7.0	4.0	2.5	2.9	1.7	1.6	1.0	.8	.9	.4

[1] For explanation of items included in each category, see pp. 93–98.

[2] For methods of imputing money value to home-produced food and to occupancy of owned homes, rented farm homes, and rent-free homes, see pp. 94–95. The figures for home-produced food cover rural families only.

Table 7A.—*Percentage of total expenditures of American families for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Percentage of expenditures for—																		
	All items	Food			Housing			Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
		Total	Purchased	Home produced [2]	Total	Money expense	Imputed value [2]												
Under $500	100.0	43.6	33.5	10.1	19.3	13.3	6.0	12.3	7.5	3.2	4.7	1.3	1.9	1.9	1.9	0.7	0.9	0.4	0.4
$500–$750	100.0	43.8	32.4	11.4	17.7	12.0	5.7	12.0	7.9	4.0	4.1	1.6	2.3	2.0	2.0	.7	.8	.4	.7
$750–$1,000	100.0	41.5	32.8	8.7	17.6	12.6	5.0	11.6	8.5	4.8	4.2	1.9	3.0	2.0	2.1	1.0	1.0	.4	.4
$1,000–$1,250	100.0	38.4	31.7	6.7	18.0	12.6	5.4	11.5	8.9	6.2	4.2	2.2	3.4	2.1	2.0	1.0	1.0	.6	.5
$1,250–$1,500	100.0	36.9	30.5	6.4	17.5	12.0	5.5	11.3	9.3	7.1	4.3	2.4	3.6	2.1	2.1	1.1	1.1	.7	.5
$1,500–$1,750	100.0	34.9	29.8	5.1	17.6	12.2	5.4	11.0	9.7	8.1	4.7	2.8	3.7	2.1	1.9	1.1	1.0	.7	.7
$1,750–$2,000	100.0	33.1	29.1	4.0	17.9	12.8	5.1	11.0	9.7	9.2	4.7	2.9	4.0	2.1	2.0	1.1	1.0	.9	.4
$2,000–$2,500	100.0	31.4	28.1	3.3	17.7	12.3	5.4	10.8	10.5	10.2	4.6	3.2	3.9	2.1	1.9	1.1	1.0	1.0	.6
$2,500–$3,000	100.0	30.0	26.9	3.1	17.6	11.9	5.7	11.3	11.1	10.5	4.7	3.5	3.6	2.1	1.8	1.0	1.0	1.3	.5
$3,000–$4,000	100.0	28.2	25.5	2.7	17.8	12.0	5.8	11.7	11.6	10.6	4.8	3.8	3.7	2.0	1.8	1.1	1.0	1.4	.5
$4,000–$5,000	100.0	26.0	24.0	2.0	17.4	11.5	5.9	12.2	12.5	11.7	4.8	4.2	3.4	2.0	1.6	1.1	.9	1.7	.5
$5,000–$10,000	100.0	23.3	21.8	1.5	17.6	11.6	6.0	13.1	12.5	11.7	5.6	4.6	3.5	2.0	1.4	1.1	.9	1.9	.8
$10,000–$15,000	100.0	19.9	19.2	.7	19.7	13.0	6.7	12.5	13.6	11.2	3.7	5.6	3.7	1.9	1.3	1.9	.9	3.7	.4
$15,000–$20,000	100.0	19.6	19.0	.6	16.3	9.9	6.4	12.9	13.8	10.1	4.6	5.3	3.0	1.7	1.1	4.4	.7	5.9	.6
$20,000 and over	100.0	15.3	15.0	.3	18.4	9.9	8.5	14.7	14.7	11.9	5.6	6.2	3.1	1.7	.8	2.8	.8	3.4	.6
All levels	100.0	33.6	28.4	5.2	17.9	12.2	5.7	11.7	10.1	8.2	4.6	2.9	3.4	2.0	1.9	1.2	.9	1.1	.5

[1] For explanation of items included in each category, see pp. 93–98.

[2] For methods of imputing money value to home-produced food and tooccupancy of owned homes, rented farm homes, and rent-free homes, see pp. 94–95. The figures for home-produced food cover rural families only.

Table 8A.—*Average food expenditures of American families incurred as money expense and as imputed value of home-produced food,*[1] *by income level, 1935–36*

Income level	Average expenditure per family for—			Percentage of food expenditures incurred as—	
	Total food	Money expense for purchased food	Imputed value of home-produced food [2]	Money expense for purchased food	Imputed value of home-produced food [2]
Under $500	$203	$156	$47	76.8	23.2
$500–$750	310	229	81	73.9	26.1
$750–$1,000	380	300	80	78.9	21.1
$1,000–$1,250	433	357	76	82.4	17.6
$1,250–$1,500	487	402	85	82.5	17.5
$1,500–$1,750	527	450	77	85.4	14.6
$1,750–$2,000	558	490	68	87.8	12.2
$2,000–$2,500	617	553	64	89.6	10.4
$2,500–$3,000	690	619	71	89.7	10.3
$3,000–$4,000	770	696	74	90.4	9.6
$4,000–$5,000	852	786	66	92.3	7.7
$5,000–$10,000	1,038	969	69	93.4	6.6
$10,000–$15,000	1,214	1,169	45	96.3	3.7
$15,000–$20,000	1,785	1,733	52	97.1	2.9
$20,000 and over	2,261	2,219	42	98.1	1.9
All levels	467	395	72	84.6	15.4

[1] For explanation of items included in each category, see pp. 93–98.

[2] For methods of imputing money value to home-produced food, see pp. 94–95. The figures for home-produced food cover rural families only.

Table 9A.—*Average housing expenditures of American families incurred as money expense and as imputed value,*[1] *by income level, 1935–36*

Income level	Average expenditure per family for—			Percentage of housing expenditures incurred as—	
	Total housing	Money expense	Imputed value [2]	Money expense	Imputed value [2]
Under $500	$90	$62	$28	68.9	31.1
$500–$750	125	85	40	68.0	32.0
$750–$1,000	161	115	46	71.4	28.6
$1,000–$1,250	203	142	61	70.0	30.0
$1,250–$1,500	230	158	72	68.7	31.3
$1,500–$1,750	267	185	82	69.3	30.7
$1,750–$2,000	302	216	86	71.5	28.5
$2,000–$2,500	349	242	107	69.3	30.7
$2,500–$3,000	404	274	130	67.8	32.2
$3,000–$4,000	485	326	159	67.2	32.8
$4,000–$5,000	571	378	193	66.2	33.8
$5,000–$10,000	784	516	268	65.8	34.2
$10,000–$15,000	1,204	795	409	66.0	34.0
$15,000–$20,000	1,490	901	589	60.5	39.5
$20,000 and over	2,721	1,465	1,256	53.8	46.2
All levels	248	169	79	68.1	31.9

[1] For explanation of items included in each category, see pp. 93–98.

[2] For methods of imputing money value to occupancy of owned homes, rented farm homes, and rent-free homes, see pp. 94–95.

TABLE 10A.—*Average outlay of American families for personal taxes and for gifts,*[1] *by income level, 1935–36*

Income level	Average outlay per family for—						Percentage of income for—					
	All personal taxes and gifts	Personal taxes [2]	Gifts				All personal taxes and gifts	Personal taxes [2]	Gifts			
			Total	To individuals	To church	Other			Total	To individuals	To church	Other
Under $500	$8	$2	$6	$2	$4	(3)	2.6	0.6	2.0	0.7	1.3	(4)
$500–$750	12	2	10	4	6	(3)	1.9	.3	1.6	.6	1.0	(4)
$750–$1,000	18	2	16	7	8	$1	2.0	.2	1.8	.8	.9	0.1
$1,000–$1,250	24	3	21	10	10	1	2.2	.3	1.9	.9	.9	.1
$1,250–$1,500	34	3	31	16	13	2	2.5	.2	2.3	1.2	1.0	.1
$1,500–$1,750	44	4	40	20	17	3	2.7	.2	2.5	1.2	1.1	.2
$1,750–$2,000	53	4	49	26	20	3	2.9	.2	2.7	1.4	1.1	.2
$2,000–$2,500	71	6	65	35	26	4	3.2	.3	2.9	1.5	1.2	.2
$2,500–$3,000	98	8	90	50	33	7	3.6	.3	3.3	1.8	1.2	.3
$3,000–$4,000	136	13	123	69	44	10	4.0	.4	3.6	2.0	1.3	.3
$4,000–$5,000	211	27	184	103	65	16	4.8	.6	4.2	2.3	1.5	.4
$5,000–$10,000	392	99	293	168	89	36	5.7	1.4	4.3	2.5	1.3	.5
$10,000–$15,000	840	329	511	451	123	92	7.4	2.9	4.5	2.0	.6	.4
$15,000–$20,000	1,282	624	658				7.4	3.6	3.8			
$20,000 and over	5,820	4,921	899				13.9	11.8	2.1			
All levels	69	24	45	25	17	3	4.3	1.5	2.8	1.5	1.1	.2

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

[3] Less than $0.50.

[4] Less than 0.05 percent.

TABLE 11A.—*Percentage of income spent by single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Percentage of income for—													
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	115.0	53.3	33.6	4.0	8.7	(2)	1.7	1.0	(2)	3.0	1.0	6.4	2.3	(2)	(2)
$500–$750	97.6	37.9	24.9	5.0	11.7	1.0	2.2	2.6	0.3	2.5	1.8	5.0	1.9	0.5	0.3
$750–$1,000	93.4	33.8	22.1	5.3	11.7	2.2	2.5	3.4	.3	2.3	2.2	4.5	1.8	.7	.6
$1,000–$1,250	89.7	31.5	20.1	5.4	11.0	3.4	2.7	4.0	.3	2.0	2.4	4.0	1.6	.7	.6
$1,250–$1,500	86.2	29.2	18.9	5.3	10.5	4.1	2.8	4.3	.3	1.8	2.4	3.7	1.5	.7	.7
$1,500–$1,750	83.1	27.0	18.0	5.2	10.3	4.5	3.0	4.4	.3	1.7	2.4	3.5	1.4	.6	.8
$1,750–$2,000	80.4	25.3	17.3	5.0	10.1	4.8	3.1	4.5	.3	1.6	2.3	3.3	1.4	.5	.9
$2,000–$2,500	77.1	23.1	16.6	4.8	9.8	5.1	3.2	4.6	.4	1.5	2.1	3.1	1.3	.5	1.0
$2,500–$3,000	73.6	21.4	15.6	4.6	9.1	5.7	3.4	4.7	.3	1.3	2.0	2.9	1.1	.4	1.1
$3,000–$4,000	69.0	18.6	15.1	4.2	8.9	5.8	3.5	4.6	.3	1.2	1.7	2.7	1.0	.3	1.1
$4,000–$5,000	63.3	15.5	14.8	3.6	8.8	5.3	3.6	4.1	.4	1.1	1.3	2.6	.8	.2	1.2
$5,000–$10,000	56.6	12.4	13.8	3.1	7.6	5.6	3.7	4.0	.4	.9	1.0	2.2	.6	.1	1.2
$10,000–$15,000	48.6	8.9	13.4	2.5	6.4	5.3	3.6	3.4	.3	.6	.6	2.0	.4	.1	1.1
$15,000–$20,000	45.3	7.5	12.5	2.1	5.5	5.9	3.7	3.5	.3	.5	.5	1.7	.3	.1	1.2
$20,000 and over	33.5	5.0	9.8	1.5	4.0	4.5	2.8	2.6	.2	.3	.3	1.3	.2	.1	.9
All levels	81.0	27.2	19.2	4.5	9.7	3.7	2.9	3.7	.3	1.7	1.8	3.7	1.4	.4	.8

[1] For explanation of items included in each category, see pp. 93–98.

[2] Less than 0.05 percent.

Table 12A.—*Percentage of total expenditures of single individuals for main categories of consumption,[1] by income level, 1935–36*

Income level	Percentage of expenditures for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	100.0	46.4	29.3	3.5	7.5	(2)	1.4	0.9	(1)	2.6	0.9	5.5	2.0	(2)	(2)
$500–$750	100.0	38.9	25.5	5.1	12.0	1.0	2.3	2.6	0.3	2.6	1.8	5.1	2.0	0.5	0.3
$750–$1,000	100.0	36.2	23.7	5.6	12.5	2.3	2.7	3.7	.4	2.5	2.3	4.8	2.0	.7	.6
$1,000–$1,250	100.0	35.0	22.4	6.0	12.2	3.8	3.0	4.5	.4	2.2	2.7	4.5	1.8	.8	.7
$1,250–$1,500	100.0	33.9	21.9	6.2	12.2	4.7	3.2	5.0	.3	2.1	2.8	4.3	1.8	.8	.8
$1,500–$1,750	100.0	32.5	21.7	6.2	12.4	5.4	3.6	5.4	.4	2.0	2.8	4.2	1.7	.7	1.0
$1,750–$2,000	100.0	31.4	21.5	6.2	12.6	6.0	3.9	5.6	.4	2.0	2.8	4.1	1.7	.7	1.1
$2,000–$2,500	100.0	30.0	21.5	6.2	12.7	6.7	4.2	6.0	.5	1.9	2.7	4.1	1.6	.6	1.3
$2,500–$3,000	100.0	29.0	21.2	6.2	12.4	7.7	4.6	6.4	.4	1.8	2.7	3.9	1.6	.6	1.5
$3,000–$4,000	100.0	27.0	21.8	6.0	12.8	8.3	5.1	6.6	.5	1.8	2.5	3.9	1.5	.5	1.7
$4,000–$5,000	100.0	24.4	23.5	5.7	13.9	8.3	5.7	6.5	.6	1.8	2.0	4.1	1.3	.4	1.8
$5,000–$10,000	100.0	21.9	24.5	5.5	13.4	9.9	6.5	7.0	.6	1.6	1.7	4.0	1.1	.2	2.1
$10,000–$15,000	100.0	18.3	27.5	5.1	13.2	11.0	7.4	7.0	.7	1.3	1.2	4.1	.8	.2	2.2
$15,000–$20,000	100.0	16.6	27.5	4.7	12.1	13.1	8.3	7.8	.6	1.0	1.0	3.8	.7	.2	2.6
$20,000 and over	100.0	15.0	29.5	4.5	11.9	13.5	8.5	7.7	.6	.9	.8	4.0	.5	.2	2.4
All levels	100.0	33.6	23.8	5.6	12.0	4.5	3.6	4.5	.3	2.1	2.3	4.5	1.7	.5	1.0

[1] For explanation of items included in each category, see pp. 93–98.

[2] Less than 0.05 percent.

Table 13A.—*Average outlay of single men [1] for consumption, gifts and personal taxes, and savings,[2] by income level, 1935–36*

Income level	Single men		Average income per single man	Average outlay per single man for—			Percentage of income for—		
	Number	Percent		Current consumption	Gifts and personal taxes [3]	Savings	Current consumption	Gifts and personal taxes [3]	Savings
Under $500	1,511,672	23.1	$288	$342	(4)	−$54	118.7	(4)	−18.7
$500–$750	1,034,119	15.8	626	617	$27	−18	98.6	4.3	−2.9
$750–$1,000	1,006,926	15.4	874	829	60	−15	94.8	6.9	−1.7
$1,000–$1,250	825,249	12.6	1,124	1,022	92	10	90.9	8.2	.9
$1,250–$1,500	684,982	10.5	1,370	1,199	123	48	87.5	9.0	3.5
$1,500–$1,750	426,597	6.5	1,618	1,368	154	96	84.6	9.5	5.9
$1,750–$2,000	306,897	4.7	1,868	1,530	185	153	81.9	9.9	8.2
$2,000–$2,500	377,028	5.7	2,226	1,751	228	247	78.6	10.3	11.1
$2,500–$3,000	128,135	2.0	2,708	2,035	286	387	75.1	10.6	14.3
$3,000–$4,000	126,703	2.0	3,395	2,414	368	613	71.1	10.8	18.1
$4,000–$5,000	36,307	.5	4,557	3,017	504	1,036	66.2	11.1	22.7
$5,000 and over	73,085	1.2	12,256	6,053	1,453	4,750	49.4	11.9	38.7
All levels	6,537,700	100.0	1,191	994	102	95	83.4	8.6	8.0

[1] Includes men living in 1-person households, lodgers and servants living with families, and men living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

[4] Less than $0.50.

Table 14A.—*Average expenditures of single men [1] for main categories of consumption,[2] by income level, 1935–36*

Income level	Average expenditure per single man for—												
	All items	Food	Shelter [3]	Clothing	Automobile	Medical care	Recreation	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$342	$177	$105	$20	(4)	$5	$3	$6	$4	$15	$6	$1	(4)
$500–$750	617	271	179	54	$10	11	20	12	16	27	12	4	$1
$750–$1,000	829	331	234	81	28	18	36	16	25	35	15	7	3
$1,000–$1,250	1,022	383	282	105	48	26	51	19	33	42	18	9	6
$1,250–$1,500	1,199	428	327	126	68	35	66	22	39	48	21	10	9
$1,500–$1,750	1,368	470	370	145	89	44	81	24	45	53	24	11	12
$1,750–$2,000	1,530	509	411	163	110	54	96	26	50	58	26	11	16
$2,000–$2,500	1,751	558	465	188	142	69	117	29	56	65	29	12	21
$2,500–$3,000	2,035	620	536	218	184	90	145	33	64	73	32	11	29
$3,000–$4,000	2,414	696	629	257	246	121	184	37	73	83	36	10	42
$4,000–$5,000	3,017	809	775	316	353	176	250	43	86	97	41	7	64
$5,000 and over	6,053	1,244	1,490	575	999	525	621	62	119	149	57	1	211
All levels	994	359	273	98	60	33	54	17	29	39	17	6	9

[1] Includes men living in 1-person households, lodgers and servants living with families, and men living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Includes expenditures for housing, household operation, and furnishings.

[4] Less than $0.50.

TABLE 15A.—*Percentage of income spent by single men [1] for main categories of consumption,[2] by income level, 1935–36*

Income level	Percentage of income for—												
	All items	Food	Shelter [3]	Clothing	Automobile	Medical care	Recreation	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	118.7	61.5	36.5	6.9	(4)	1.7	1.0	2.1	1.4	5.2	2.1	0.3	(4)
$500–$750	98.6	43.3	28.6	8.6	1.6	1.8	3.2	1.9	2.6	4.3	1.9	.6	0.2
$750–$1,000	94.8	37.9	26.7	9.3	3.2	2.1	4.1	1.8	2.9	4.0	1.7	.8	.3
$1,000–$1,250	90.9	34.1	25.1	9.4	4.3	2.3	4.5	1.7	2.9	3.7	1.6	.8	.5
$1,250–$1,500	87.5	31.2	23.9	9.2	5.0	2.6	4.8	1.6	2.8	3.5	1.5	.7	.7
$1,500–$1,750	84.6	29.0	22.9	9.0	5.5	2.7	5.0	1.5	2.8	3.3	1.5	.7	.7
$1,750–$2,000	81.9	27.2	22.0	8.7	5.9	2.9	5.1	1.4	2.7	3.1	1.4	.6	.9
$2,000–$2,500	78.6	25.1	20.9	8.4	6.4	3.1	5.3	1.3	2.5	2.9	1.3	.5	.9
$2,500–$3,000	75.1	22.9	19.8	8.0	6.8	3.3	5.3	1.2	2.4	2.7	1.2	.4	1.1
$3,000–$4,000	71.1	20.5	18.6	7.5	7.2	3.6	5.4	1.1	2.2	2.4	1.1	.3	1.2
$4,000–$5,000	66.2	17.7	17.1	6.9	7.7	3.9	5.5	.9	1.9	2.1	.9	.2	1.4
$5,000 and over	49.4	10.1	12.1	4.7	8.2	4.3	5.1	.5	1.0	1.2	.5	(4)	1.7
All levels	83.4	30.1	23.0	8.2	5.0	2.8	4.5	1.4	2.4	3.3	1.4	.5	.8

[1] Includes men living in 1-person households, lodgers and servants living with families, and men living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Includes expenditures for housing, household operation, and furnishings.

[4] Less than 0.05 percent.

TABLE 16A.—*Average outlay of single women [1] for consumption, gifts and personal taxes, and savings,[2] by income level, 1935–36*

Income level	Single women		Average income per single woman	Average outlay per single woman for—			Percentage of income for—		
	Number	Percent		Current consumption	Gifts and personal taxes [3]	Savings	Current consumption	Gifts and personal taxes [3]	Savings
Under $500	1,020,955	29.0	$315	$345	$11	−$41	109.5	3.5	−13.0
$500–$750	938,626	26.7	621	599	38	−16	96.5	6.1	−2.6
$750–$1,000	592,104	16.8	863	784	66	13	90.9	7.6	1.5
$1,000–$1,250	283,302	8.1	1,110	954	97	59	86.0	8.7	5.3
$1,250–$1,500	192,974	5.5	1,366	1,116	130	120	81.7	9.5	8.8
$1,500–$1,750	119,949	3.4	1,615	1,263	162	190	78.2	10.0	11.8
$1,750–$2,000	92,088	2.6	1,869	1,406	196	267	75.2	10.5	14.3
$2,000–$2,500	116,723	3.3	2,222	1,593	244	385	71.7	11.0	17.3
$2,500–$3,000	33,140	1.0	2,699	1,833	310	556	67.9	11.5	20.6
$3,000–$4,000	45,388	1.3	3,455	2,184	416	855	63.3	12.0	24.7
$4,000–$5,000	25,289	0.7	4,405	2,598	551	1,256	59.0	12.5	28.5
$5,000 and over	59,762	1.6	13,938	5,496	2,126	6,316	39.4	15.3	45.3
All levels	3,520,300	100.0	1,081	819	106	156	75.8	9.8	14.4

[1] Includes women living in 1-person households, lodgers and servants living with families, and women living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 17A.—*Average expenditures of single women [1] for main categories of consumption,[2] by income level, 1935–36*

Income level	Average expenditure per single woman for—												
	All items	Food	Shelter [3]	Clothing	Automobile	Medical care	Recreation	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$345	$135	$122	$36	(4)	$4	$2	$13	$1	$24	$8	(4)	(4)
$500–$750	599	197	197	93	$1	18	12	21	5	36	13	$2	$4
$750–$1,000	784	232	254	136	4	30	20	27	8	45	16	4	8
$1,000–$1,250	954	264	308	175	7	41	28	31	11	53	19	5	12
$1,250–$1,500	1,116	294	363	211	11	52	34	35	12	61	21	6	16
$1,500–$1,750	1,263	320	415	243	15	61	40	39	14	69	22	7	18
$1,750–$2,000	1,406	344	467	273	20	70	46	42	15	76	24	8	21
$2,000–$2,500	1,593	375	537	312	26	82	54	46	16	86	26	9	24
$2,500–$3,000	1,833	414	631	360	35	98	63	51	16	99	28	11	27
$3,000–$4,000	2,184	469	774	427	51	120	76	57	16	119	31	13	31
$4,000–$5,000	2,598	529	953	502	71	146	91	63	16	143	34	15	35
$5,000 and over	5,496	884	2,367	942	262	320	179	85	18	329	41	25	44
All levels	819	229	282	138	10	33	21	25	7	48	15	3	8

[1] Includes women living in 1-person households, lodgers and servants living with families, and women living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Includes expenditures for housing, household operation, and furnishings.

[4] Less than $0.50.

TABLE 18A.—*Percentage of income spent by single women [1] for main categories of consumption,[2] by income level, 1935–36*

Income level	Percentage of income for—												
	All items	Food	Shelter [3]	Clothing	Automobile	Medical care	Recreation	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	109.5	42.9	38.8	11.4	(4)	1.3	0.6	4.1	0.3	7.6	2.5	(4)	(4)
$500–$750	96.5	31.7	31.8	15.0	0.2	2.9	1.9	3.4	.8	5.8	2.1	0.3	0.6
$750–$1,000	90.9	26.9	29.4	15.8	.5	3.5	2.3	3.1	.9	5.2	1.9	.5	.9
$1,000–$1,250	86.0	23.8	27.7	15.8	.6	3.7	2.5	2.8	1.0	4.8	1.7	.5	1.1
$1,250–$1,500	81.7	21.5	26.6	15.4	.8	3.8	2.5	2.6	.9	4.5	1.5	.4	1.2
$1,500–$1,750	78.2	19.8	25.7	15.0	.9	3.8	2.5	2.4	.9	4.3	1.4	.4	1.1
$1,750–$2,000	75.2	18.4	25.0	14.6	1.1	3.7	2.5	2.2	.8	4.1	1.3	.4	1.1
$2,000–$2,500	71.7	16.9	24.1	14.0	1.2	3.7	2.4	2.1	.7	3.9	1.2	.4	1.1
$2,500–$3,000	67.9	15.3	23.5	13.3	1.3	3.6	2.3	1.9	.6	3.7	1.0	.4	1.0
$3,000–$4,000	63.3	13.6	22.4	12.4	1.5	3.5	2.2	1.6	.5	3.4	.9	.4	.9
$4,000–$5,000	59.0	12.0	21.6	11.4	1.6	3.3	2.1	1.4	.4	3.3	.8	.3	.8
$5,000 and over	39.4	6.3	17.0	6.7	1.9	2.3	1.3	.6	.1	2.4	.3	.2	.3
All levels	75.8	21.2	26.1	12.8	.9	3.1	1.9	2.3	.6	4.5	1.4	.3	.7

[1] Includes women living in 1-person households, lodgers and servants living with families, and women living in lodging or boarding houses or in similar quasi-family groups.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Includes expenditures for housing, household operation, and furnishings.

[4] Less than 0.05 percent.

TABLE 19A.—*Average outlay of American families and single individuals for consumption, gifts and personal taxes, and savings,[1] by income level, 1935–36*

Income level	Families and single individuals		Average income per consumer unit	Average outlay per consumer unit for—			Percentage of income for—		
	Number	Percent		Current consumption	Gifts and personal taxes [2]	Savings	Current consumption	Gifts and personal taxes [2]	Savings
Under $500	6,710,911	17.0	$307	$420	$6	−$119	136.8	2.0	−38.8
$500–$750	5,771,960	14.6	626	673	19	−66	107.5	3.0	−10.5
$750–$1,000	5,876,078	14.9	873	886	30	−43	101.5	3.4	−4.9
$1,000–$1,250	4,990,995	12.7	1,120	1,099	40	−19	98.1	3.6	−1.7
$1,250–$1,500	3,743,428	9.5	1,365	1,285	55	25	94.1	4.0	1.9
$1,500–$1,750	2,889,904	7.3	1,613	1,480	65	68	91.8	4.0	4.2
$1,750–$2,000	2,296,022	5.8	1,835	1,652	76	107	90.0	4.2	5.8
$2,000–$2,500	2,958,611	7.5	2,221	1,925	98	198	86.7	4.4	8.9
$2,500–$3,000	1,475,474	3.7	2,714	2,269	119	326	83.6	4.4	12.0
$3,000–$4,000	1,354,078	3.4	3,396	2,681	167	548	79.0	4.9	16.1
$4,000–$5,000	464,191	1.2	4,405	3,219	252	934	73.1	5.7	21.2
$5,000–$10,000	595,908	1.5	6,867	4,369	454	2,044	63.6	6.6	29.8
$10,000–$15,000	152,682	.4	11,442	6,060	933	4,449	53.0	8.1	38.9
$15,000–$20,000	67,923	.2	17,293	8,937	1,403	6,953	51.7	8.1	40.2
$20,000 and over	110,135	.3	42,175	14,799	5,944	21,432	35.1	14.1	50.8
All levels	39,458,300	100.0	1,502	1,273	78	151	84.7	5.2	10.1

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 20A.—*Average expenditures of American families and single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Average expenditure per consumer unit for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$420	$187	$94	$40	$32	$9	$16	$4	$6	$9	$7	$9	$5	$1	$1
$500–$750	673	285	135	66	62	20	24	13	11	15	13	14	8	3	4
$750–$1,000	886	357	170	89	84	37	33	20	20	19	19	17	11	5	5
$1,000–$1,250	1, 099	415	208	114	105	63	43	29	30	23	24	19	13	7	6
$1,250–$1,500	1, 285	466	237	131	129	84	53	38	37	27	29	22	15	9	8
$1,500–$1,750	1, 480	510	272	150	150	113	67	48	47	31	31	24	16	11	10
$1,750–$2,000	1, 652	543	306	170	169	142	75	55	57	34	34	26	18	14	9
$2,000–$2,500	1, 925	601	352	195	208	186	88	69	64	41	39	30	21	18	13
$2,500–$3,000	2, 269	677	406	246	254	232	107	87	76	48	42	30	23	28	13
$3,000–$4,000	2, 681	753	489	296	314	277	131	112	90	53	49	38	28	34	17
$4,000–$5,000	3, 219	831	584	368	406	363	159	142	98	64	53	46	32	51	22
$5,000–$10,000	4, 369	1, 010	807	534	551	502	248	215	139	85	63	63	42	72	41
$10,000–$15,000	6, 060	1, 195	1, 258	697	821	675	255	350	201	108	78	131	56	198	37
$15,000–$20,000	8, 937	1, 715	1, 579	1, 065	1, 219	932	447	502	245	145	100	384	67	464	73
$20,000 and over	14, 799	2, 252	2, 964	1, 948	2, 111	1, 792	899	951	405	232	124	443	118	430	130
All levels	1, 273	428	241	134	133	96	56	42	36	26	24	22	14	13	8

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 21A.—*Percentoge of income spent by American families and single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Percentage of income for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	136. 8	60. 9	30. 6	13. 0	10. 4	3. 0	5. 2	1. 3	2. 0	3. 0	2. 3	2. 9	1. 6	0. 3	0. 3
$500–$750	107. 5	45. 5	21. 5	10. 6	9. 9	3. 2	3. 8	2. 1	1. 8	2. 4	2. 1	2. 2	1. 3	. 5	. 6
$750–$1,000	101. 5	40. 9	19. 4	10. 2	9. 6	4. 2	3. 8	2. 3	2. 3	2. 2	2. 2	1. 9	1. 3	. 6	. 6
$1,000–$1,250	98. 1	37. 1	18. 6	10. 2	9. 4	5. 6	3. 8	2. 6	2. 7	2. 0	2. 1	1. 7	1. 2	. 6	. 5
$1,250–$1,500	94. 1	34. 1	17. 4	9. 6	9. 4	6. 1	3. 9	2. 8	2. 7	2. 0	2. 1	1. 6	1. 1	. 7	. 6
$1,500–$1,750	91. 8	31. 6	16. 9	9. 3	9. 3	7. 0	4. 2	3. 0	2. 9	1. 9	1. 9	1. 5	1. 0	. 7	. 6
$1,750–$2,000	90. 0	29. 6	16. 7	9. 3	9. 2	7. 7	4. 1	3. 0	3. 1	1. 8	1. 8	1. 4	1. 0	. 8	. 5
$2,000–$2,500	86. 7	27. 0	15. 8	8. 8	9. 4	8. 4	4. 0	3. 1	2. 9	1. 8	1. 8	1. 4	. 9	. 8	. 6
$2,500–$3,000	83. 6	24. 9	15. 0	9. 1	9. 4	8. 6	3. 9	3. 2	2. 8	1. 8	1. 6	1. 1	. 8	1. 0	. 5
$3,000–$4,000	79. 0	22. 2	14. 4	8. 7	9. 2	8. 2	3. 9	3. 3	2. 7	1. 6	1. 4	1. 1	. 8	1. 0	. 5
$4,000–$5,000	73. 1	18. 9	13. 3	8. 4	9. 2	8. 2	3. 6	3. 2	2. 2	1. 5	1. 2	1. 0	. 7	1. 2	. 5
$5,000–$10,000	63. 6	14. 7	11. 8	7. 7	8. 0	7. 3	3. 6	3. 2	2. 0	1. 2	. 9	. 9	. 6	1. 1	. 6
$10,000–$15,000	53. 0	10. 4	11. 0	6. 1	7. 2	5. 9	2. 2	3. 1	1. 8	. 9	. 7	1. 2	. 5	1. 7	. 3
$15,000–$20,000	51. 7	9. 9	9. 1	6. 2	7. 1	5. 4	2. 6	2. 9	1. 4	. 8	. 6	2. 2	. 4	2. 7	. 4
$20,000 and over	35. 1	5. 3	7. 0	4. 6	5. 0	4. 2	2. 1	2. 3	1. 0	. 6	. 3	1. 1	. 3	1. 0	. 3
All levels	84. 7	28. 5	16. 0	8. 9	8. 9	6. 4	3. 7	2. 8	2. 4	1. 7	1. 6	1. 6	. 9	. 9	. 5

[1] For explanation of items inclnded in each category, see pp. 93–98.

TABLE 22A.—*Percentage of total expenditures of American families and single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Percentage of expenditures for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	100.0	44.5	22.3	9.5	7.6	2.2	3.8	1.0	1.4	2.2	1.7	2.2	1.2	0.2	0.2
$500–$750	100.0	42.3	20.1	9.8	9.2	3.0	3.6	1.9	1.6	2.2	1.9	2.1	1.2	.5	.6
$750–$1,000	100.0	40.3	19.2	10.0	9.6	4.2	3.7	2.2	2.2	2.2	2.2	1.9	1.2	.6	.6
$1,000–$1,250	100.0	37.8	19.0	10.4	9.6	5.7	3.9	2.6	2.7	2.1	2.2	1.7	1.2	.6	.5
$1,250–$1,500	100.0	36.3	18.4	10.2	10.0	6.5	4.1	3.0	2.9	2.1	2.3	1.7	1.2	.7	.6
$1,500–$1,750	100.0	34.5	18.4	10.1	10.1	7.6	4.5	3.3	3.2	2.1	2.1	1.6	1.1	.7	.7
$1,750–$2,000	100.0	32.9	18.5	10.3	10.2	8.6	4.5	3.3	3.5	2.1	2.1	1.6	1.1	.8	.5
$2,000–$2,500	100.0	31.2	18.3	10.1	10.8	9.7	4.6	3.6	3.3	2.1	2.0	1.6	1.1	.9	.7
$2,500–$3.000	100.0	29.9	17.9	10.9	11.2	10.2	4.7	3.8	3.3	2.1	1.9	1.3	1.0	1.2	.6
$3,000–$4,000	100.0	28.1	18.3	11.0	11.7	10.3	4.9	4.2	3.4	2.0	1.8	1.4	1.0	1.3	.6
$4,000–$5,000	100.0	25.9	18.2	11.4	12.6	11.3	4.9	4.4	3.0	2.0	1.6	1.4	1.0	1.6	.7
$5,000–$10,000	100.0	23.2	18.5	12.2	12.6	11.5	5.7	4.9	3.2	1.9	1.4	1.4	1.0	1.6	.9
$10,000–$15,000	100.0	19.7	20.7	11.5	13.6	11.1	4.2	5.8	3.3	1.8	1.3	2.2	.9	3.3	.6
$15,000–$20,000	100.0	19.2	17.7	11.9	13.6	10.4	5.0	5.6	2.8	1.6	1.1	4.3	.8	5.2	.8
$20,000 and over	100.0	15.2	20.0	13.2	14.3	12.1	6.1	6.4	2.7	1.6	.8	3.0	.8	2.9	.9
All levels	100.0	33.6	18.9	10.6	10.5	7.6	4.4	3.3	2.8	2.0	1.9	1.7	1.1	1.0	.6

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 23A.—*Average disbursements of consumer units in each quarter of Nation,*[1] *1935–36*

Category of disbursement[2]	Average disbursements of families and single individuals in—				Percentage of income			
	First quarter (incomes under $635)	Second quarter (incomes of $635 to $1,070)	Third quarter (incomes of $1,070 to $1,715)	Fourth quarter (incomes of $1,715 and over)	First quarter	Second quarter	Third quarter	Fourth quarter
Current consumption:								
Food	$218	$350	$457	$685	53.3	41.1	34.2	20.1
Housing	107	168	234	454	26.2	19.7	17.5	13.3
Household operation	48	88	129	270	11.7	10.3	9.7	7.9
Clothing	41	82	125	285	10.0	9.6	9.4	8.4
Automobile	13	37	84	250	3.2	4.3	6.3	7.3
Medical care	18	33	53	120	4.4	3.9	4.0	3.5
Recreation	7	20	37	103	1.7	2.3	2.8	3.0
Furnishings	7	20	37	80	1.7	2.3	2.8	2.3
Personal care	11	18	26	49	2.7	2.1	1.9	1.4
Tobacco	9	18	27	43	2.2	2.1	2.0	1.3
Transportation other than auto	11	16	21	41	2.7	1.9	1.6	1.2
Reading	6	10	15	25	1.5	1.2	1.1	.7
Education	2	5	9	36	.5	.6	.7	1.1
Other items	2	5	8	17	.5	.6	.6	.5
All consumption items	500	870	1,262	2,458	122.3	102.0	94.6	72.0
Gifts and personal taxes[3]	11	29	52	220	2.7	3.4	3.9	6.5
Savings	−102	−46	20	734	−25.0	−5.4	1.5	21.5
All items	409	853	1.334	3,412	100.0	100.0	100.0	100.0

[1] Each quarter includes 9,864,575 families and single individuals—one-fourth of the total number. Residents in institutional groups are excluded.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 24A.—*Aggregate outlay of American families for consumption, gifts and personal taxes, and savings,*[1] *by income level, 1935–36*

Income level	Families		Aggregate income		Aggregate outlay for—					
					Current consumption		Gifts and personal taxes[2]		Savings	
	Number	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Under $500	4, 178, 284	14. 2	$1, 302	2. 8	$1, 946	4. 7	$34	1. 7	−$678	−14. 1
$500–$750	3, 799, 215	12. 9	2, 384	5. 0	2, 687	6. 6	45	2. 2	−348	−7. 2
$750–$1,000	4, 277, 048	14. 6	3, 738	7. 8	3, 910	9. 6	75	3. 7	−247	−5. 1
$1,000–$1,250	3, 882, 444	13. 2	4, 348	9. 1	4, 374	10. 7	96	4. 7	−122	−2. 5
$1,250–$1,500	2, 865, 472	9. 8	3, 908	8. 2	3, 771	9. 2	98	4. 8	39	. 8
$1,500–$1,750	2, 343, 358	8. 0	3, 778	7. 9	3, 544	8. 7	102	5. 0	132	2. 7
$1,750–$2,000	1, 897, 037	6. 4	3, 469	7. 3	3, 195	7. 8	100	4. 9	174	3. 6
$2,000–$2,500	2, 464, 860	8. 4	5, 474	11. 5	4, 850	11. 9	175	8. 6	449	9. 3
$2,500–$3,000	1, 314, 199	4. 5	3, 569	7. 5	3, 026	7. 4	129	6. 4	414	8. 6
$3,000–$4,000	1, 181, 987	4. 0	4, 012	8. 4	3, 226	7. 9	160	7. 9	626	13. 0
$4,000–$5,000	402, 595	1. 4	1, 768	3. 7	1, 319	3. 2	85	4. 2	364	7. 6
$5,000–$10,000	510, 010	1. 7	3, 505	7. 4	2, 271	5. 6	200	9. 9	1, 034	21. 5
$10,000–$15,000	131, 821	. 4	1, 497	3. 1	804	2. 0	111	5. 5	582	12. 1
$15,000–$20,000	58, 487	. 2	1, 014	2. 1	534	1. 3	74	3. 7	406	8. 4
$20,000 and over	93, 483	. 3	3, 914	8. 2	1, 386	3. 4	544	26. 8	1, 984	41. 3
All levels	29, 400, 300	100. 0	[3] 47, 680	100. 0	40, 843	100. 0	2, 028	100. 0	4, 809	100. 0

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

[3] The $1 million difference between this figure and total family income as given in *Consumer Incomes in the United States* is due to rounding.

TABLE 25A.—*Aggregate expenditures of American families for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Aggregate expenditures (in millions) for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$1, 946	$848	$380	$239	$146	$63	$92	$23	$37	$37	$38	$12	$15	$8	$8
$500–$750	2, 687	1, 180	475	322	212	107	112	41	60	52	55	19	21	12	19
$750–$1,000	3, 910	1, 626	691	452	333	187	161	71	116	79	82	37	37	19	19
$1,000–$1,250	4, 374	1, 683	787	504	387	274	183	96	148	91	87	43	43	26	22
$1,250–$1,500	3, 771	1, 395	660	426	351	266	164	90	137	78	78	39	40	27	20
$1,500–$1,750	3, 544	1, 235	627	390	344	287	166	98	132	76	68	38	34	26	23
$1,750–$2,000	3, 195	1, 058	572	354	312	291	149	94	128	66	63	35	31	28	14
$2,000–$2,500	4, 850	1, 522	860	525	509	493	225	153	186	104	93	55	49	49	27
$2,500–$3,000	3, 026	907	531	343	335	318	143	107	111	64	53	32	29	39	14
$3,000–$4,000	3, 226	911	574	377	373	341	156	124	121	64	57	36	32	44	16
$4,000–$5,000	1 319	343	230	161	164	154	64	55	44	27	21	14	12	23	7
$5,000–$10,000	2, 271	529	400	298	284	266	126	105	80	46	32	25	21	42	17
$10,000–$15,000	804	160	159	100	109	90	30	45	30	15	10	15	8	30	3
$15,000–$20,000	534	105	87	69	74	54	24	28	16	9	6	23	4	32	3
$20,000 and over	1, 386	211	254	204	204	164	78	86	43	23	12	40	12	47	8
All levels	40, 843	13, 713	7, 287	4, 764	4, 137	3, 355	1, 873	1, 216	1, 389	831	755	463	388	452	220

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 26A.—*Percentage of aggregate expenditures made by American families at each income level for main categories of consumption,*[1] *1935–36*

Income level	Percentage of aggregate expenditures for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	4.7	6.1	5.2	5.0	3.5	1.9	4.9	1.9	2.7	4.5	5.0	2.6	3.9	1.7	3.6
$500–$750	6.6	8.6	6.5	6.8	5.1	3.2	6.0	3.4	4.3	6.3	7.3	4.1	5.4	2.7	8.6
$750–$1,000	9.6	11.9	9.5	9.5	8.1	5.6	8.6	5.8	8.3	9.5	10.9	8.0	9.5	4.2	8.6
$1,000–$1,250	10.7	12.3	10.8	10.6	9.4	8.2	9.8	7.9	10.6	11.0	11.5	9.3	11.1	5.8	10.0
$1,250–$1,500	9.2	10.2	9.0	8.9	8.5	7.9	8.7	7.4	9.9	9.4	10.3	8.4	10.3	6.0	9.1
$1,500–$1,750	8.7	9.0	8.6	8.2	8.3	8.5	8.9	8.1	9.5	9.1	9.0	8.2	8.8	5.8	10.4
$1,750–$2,000	7.8	7.7	7.8	7.4	7.5	8.7	8.0	7.7	9.2	7.9	8.4	7.6	8.0	6.2	6.4
$2,000–$2,500	11.9	11.1	11.8	11.0	12.3	14.7	12.0	12.6	13.4	12.5	12.3	11.9	12.6	10.8	12.3
$2,500–$3,000	7.4	6.6	7.3	7.2	8.1	9.5	7.6	8.8	8.0	7.7	7.0	6.9	7.5	8.6	6.4
$3,000–$4,000	7.9	6.6	7.9	7.9	9.0	10.1	8.3	10.2	8.7	7.7	7.6	7.8	8.2	9.7	7.3
$4,000–$5,000	3.2	2.5	3.2	3.4	4.0	4.6	3.4	4.5	3.2	3.2	2.8	3.0	3.1	5.1	3.2
$5,000–$10,000	5.6	3.9	5.5	6.3	6.9	7.9	6.7	8.6	5.8	5.5	4.2	5.4	5.4	9.3	7.7
$10,000–$15,000	2.0	1.2	2.2	2.1	2.6	2.7	1.6	3.7	2.1	1.8	1.3	3.2	2.1	6.6	1.4
$15,000–$20,000	1.3	.8	1.2	1.4	1.8	1.6	1.3	2.3	1.2	1.1	.8	5.0	1.0	7.1	1.4
$20,000 and over	3.4	1.5	3.5	4.3	4.9	4.9	4.2	7.1	3.1	2.8	1.6	8.6	3.1	10.4	3.6
All levels	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 27A.—*Aggregate outlay of American families for personal taxes, and for gifts,*[1] *by income level, 1935–36*

Income level	Aggregate outlay (in millions) for—						Percentage of aggregate outlay for—					
	All personal taxes and gifts	Personal taxes [2]	Gifts				All personal taxes and gifts	Personal taxes [2]	Gifts			
			Total	To individuals	To church	Other			Total	To individuals	To church	Other
Under $500	$34	$8	$26	$9	$16	$1	1.7	1.1	2.0	1.3	3.3	0.9
$500–$750	45	8	37	14	21	2	2.2	1.1	2.8	1.9	4.3	1.8
$750–$1,000	75	10	65	29	33	3	3.7	1.4	4.9	4.0	6.7	2.7
$1,000–$1,250	96	11	85	40	40	5	4.7	1.6	6.4	5.5	8.1	4.5
$1,250–$1,500	98	9	89	45	38	6	4.8	1.3	6.7	6.2	7.8	5.4
$1,500–$1,750	102	8	94	48	40	6	5.0	1.1	7.1	6.6	8.1	5.4
$1,750–$2,000	100	8	92	49	37	6	4.9	1.1	6.9	6.8	7.6	5.4
$2,000–$2,500	175	14	161	86	64	11	8.6	2.0	12.2	11.9	13.1	9.9
$2,500–$3,000	129	11	118	66	43	9	6.4	1.6	8.9	9.1	8.8	8.1
$3,000–$4,000	160	15	145	81	52	12	7.9	2.1	11.0	11.2	10.6	10.8
$4,000–$5,000	85	11	74	42	26	6	4.2	1.6	5.6	5.8	5.3	5.4
$5,000–$10,000	200	51	149	86	45	18	9.9	7.2	11.2	11.9	9.2	16.2
$10,000–$15,000	111	44	67	128	35	26	5.5	6.3	5.1	17.8	7.1	23.5
$15,000–$20,000	74	36	38				3.7	5.1	2.9			
$20,000 and over	544	460	84				26.8	65.4	6.3			
All levels	2,028	704	1,324	723	490	111	100.0	100.0	100.0	100.0	100.0	100.0

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 28A.—*Aggregate outlay of single individuals for consumption, gifts and personal taxes, and savings,*[1] *by income level, 1935–36*

Income level	Single individuals		Aggregate income		Aggregate outlay for—					
					Current consumption		Gifts and personal taxes[2]		Savings	
	Number	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Under $500	2,532,627	25.2	$759	6.5	$872	9.3	$11	1.1	−$124	−10.6
$500–$750	1,972,745	19.6	1,231	10.6	1,201	12.8	63	6.1	−33	−2.8
$750–$1,000	1,599,030	15.9	1,392	12.0	1,299	13.9	100	9.6	−7	−.6
$1,000–$1,250	1,108.551	11.0	1,241	10.7	1,113	11.9	103	9.9	25	2.1
$1,250–$1,500	877,956	8.7	1,201	10.4	1,036	11.1	109	10.5	56	4.8
$1,500–$1,750	546,546	5.4	883	7.6	734	7.8	85	8.2	64	5.5
$1,750–$2,000	398,985	4.0	745	6.4	598	6.4	75	7.2	72	6.2
$2,000–$2,500	493,751	4.9	1,098	9.5	846	9.0	114	11.0	138	11.8
$2,500–$3,000	161,275	1.6	436	3.8	321	3.4	47	4.5	68	5.8
$3,000–$4,000	172,091	1.7	587	5.1	405	4.3	66	6.3	116	9.9
$4,000–$5,000	61,596	.6	277	2.4	176	1.9	32	3.1	69	5.9
$5,000–$10,000	85,898	.9	587	5.1	332	3.5	71	6.8	184	15.7
$10,000–$15,000	20,861	.2	250	2.2	121	1.3	32	3.1	97	8.3
$15,000–$20,000	9,436	.1	161	1.4	73	.8	20	1.9	68	5.8
$20,000 and over	16,652	.2	731	6.3	244	2.6	111	10.7	376	32.2
All levels	10,058,000	100.0	11,579	100.0	9,371	100.0	1,039	100.0	1,169	100.0

[1] For explanation of items included in each category, see pp. 93–98.

[2] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

TABLE 29A.—*Aggregate expenditures of single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Aggregate expenditures (in millions) for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$872	$406	$254	$30	$67	(2)	$12	$7	(2)	$23	$7	$47	$18	$1	(2)
$500–$750	1,201	465	307	60	144	$11	28	32	$3	32	22	62	24	6	$5
$750–$1,000	1,299	471	308	73	163	31	36	48	4	31	30	62	25	9	8
$1,000–$1,250	1,113	391	249	66	136	42	33	50	4	24	30	50	21	9	8
$1,250–$1,500	1,036	350	226	64	127	49	34	52	4	22	29	44	18	8	9
$1,500–$1,750	734	239	158	46	91	40	26	39	3	15	21	31	13	5	7
$1,750–$2,000	598	188	129	37	75	36	23	34	2	12	16	25	10	4	7
$2,000–$2,500	846	254	182	52	107	56	36	50	4	16	23	35	14	6	11
$2,500–$3,000	321	93	68	20	40	25	15	20	1	6	9	12	5	2	5
$3,000–$4,000	405	109	89	25	52	33	21	27	2	7	10	16	6	2	6
$4,000–$5,000	176	43	42	10	24	15	10	11	1	3	4	7	2	1	3
$5,000–$10,000	332	72	82	18	44	33	22	23	2	5	6	13	4	1	7
$10,000–$15,000	121	22	33	6	16	13	9	9	1	2	1	5	1	(2)	3
$15,000–$20,000	73	12	20	3	9	9	6	6	(2)	1	1	3	1	(2)	2
$20,000 and over	244	37	72	11	29	33	21	19	2	2	2	9	1	(2)	6
All levels	9,371	3,152	2,219	521	1,124	426	332	427	33	201	211	421	163	54	87

[1] For explanation of items included in each category, see pp. 93–98.

[2] Less than $500,000.

Table 30A.—*Percentage of aggregate expenditures made by single individuals at each income level for main categories of consumption,*[1] *1935–36*

Income level	Percentage of aggregate expenditures for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	9.3	12.9	11.5	5.7	6.0	(2)	3.6	1.7	(2)	11.4	3.3	11.2	11.1	1.9	(2)
$500–$750	12.8	14.7	13.8	11.5	12.8	2.6	8.4	7.5	9.1	15.9	10.4	14.7	14.7	11.1	5.7
$750–$1,000	13.9	14.9	13.9	14.0	14.5	7.3	10.9	11.2	12.1	15.4	14.2	14.7	15.3	16.7	9.2
$1,000–$1,250	11.9	12.4	11.2	12.7	12.1	9.9	10.0	11.7	12.1	11.9	14.2	11.9	12.9	16.7	9.2
$1,250–$1,500	11.1	11.1	10.2	12.3	11.3	11.5	10.3	12.2	12.1	10.9	13.8	10.5	11.0	14.8	10.4
$1,500–$1,750	7.8	7.6	7.1	8.8	8.1	9.4	7.8	9.1	9.1	7.5	10.0	7.4	8.0	9.3	8.1
$1,750–$2,000	6.4	6.0	5.8	7.1	6.7	8.5	6.9	8.0	6.1	6.0	7.6	5.9	6.1	7.1	8.1
$2,000–$2,500	9.0	8.0	8.2	10.0	9.5	13.1	10.9	11.7	12.1	8.0	10.9	8.3	8.6	11.1	12.6
$2,500–$3,000	3.4	3.0	3.1	3.8	3.6	5.9	4.5	4.7	3.0	3.0	4.3	2.8	3.1	3.7	5.8
$3,000–$4,000	4.3	3.4	4.0	4.8	4.6	7.7	6.3	6.3	6.1	3.5	4.7	3.8	3.7	3.7	6.9
$4,000–$5,000	1.9	1.4	1.9	1.9	2.1	3.5	3.0	2.6	3.0	1.5	1.9	1.7	1.2	1.8	3.4
$5,000–$10,000	3.5	2.3	3.7	3.5	3.9	7.7	6.6	5.4	6.1	2.5	2.8	3.1	2.5	1.8	8.0
$10,000–$15,000	1.3	.7	1.5	1.2	1.4	3.1	2.7	2.1	3.0	1.0	.5	1.2	6	(2)	3.4
$15,000–$20,000	.8	.4	.9	.6	.8	2.1	1.8	1.4	(2)	.5	.5	.7	.6	(2)	2.3
$20,000 and over	2.6	1.2	3.2	2.1	2.6	7.7	6.3	4.4	6.1	1.0	.9	2.1	6	(2)	6.9
All levels	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] For explanation of items included in each category, see pp. 93–98.

[2] Less than 0.05 percent.

Table 31A.—*Aggregate expenditures of American families and single individuals for main categories of consumption,*[1] *by income level, 1935–36*

Income level	Aggregate expenditures (in millions) for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	$2,817	$1,254	$634	$269	$212	$63	$104	$30	$37	$60	$46	$59	$32	$8	$9
$500–$750	3,888	1,645	781	382	356	118	140	72	63	85	77	81	46	18	24
$750–$1,000	5,209	2,097	999	525	495	218	197	119	121	110	112	99	62	28	27
$1,000–$1,250	5,487	2,074	1,037	571	523	316	216	146	151	115	117	93	64	34	30
$1,250–$1,500	4,807	1,745	887	490	479	315	198	142	140	100	107	83	58	35	28
$1,500–$1,750	4,278	1,474	786	435	435	327	193	137	135	90	89	69	47	32	29
$1,750–$2,000	3,794	1,246	701	391	388	327	172	127	131	78	79	60	41	32	21
$2,000–$2,500	5,695	1,776	1,041	578	616	549	260	204	190	120	116	89	63	55	38
$2,500–$3,000	3,348	1,000	600	362	375	342	158	128	112	70	62	45	34	41	19
$3,000–$4,000	3,631	1,020	662	402	425	375	177	151	122	71	66	52	38	47	23
$4,000–$5,000	1,494	386	271	171	187	169	74	66	45	30	25	21	15	24	10
$5,000–$10,000	2,604	602	481	316	329	299	148	128	83	51	37	38	25	13	24
$10,000–$15,000	925	182	192	106	125	103	39	54	31	17	12	20	8	30	6
$15,000–$20,000	607	116	107	72	83	63	30	34	17	10	7	26	5	32	5
$20,000 and over	1,630	248	327	215	233	197	99	105	44	25	14	49	13	47	14
All levels	50,214	16,865	9,506	5,285	5,261	3,781	2,205	1,643	1,422	1,032	966	884	551	506	307

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 32A.—*Percentage of aggregate expenditures made by American families and single individuals at each income level for main categories of consumption,*[1] *1935–36*

Income level	Percentage of aggregate expenditures for—														
	All items	Food	Housing	Household operation	Clothing	Automobile	Medical care	Recreation	Furnishings	Personal care	Tobacco	Transportation other than auto	Reading	Education	Other items
Under $500	5.6	7.4	6.7	5.1	4.0	1.7	4.7	1.8	2.6	5.8	4.8	6.7	5.8	1.6	2.9
$500–$750	7.8	9.8	8.2	7.2	6.8	3.1	6.3	4.4	4.4	8.2	8.0	9.2	8.4	3.6	7.8
$750–$1,000	10.4	12.4	10.5	9.9	9.4	5.8	8.9	7.2	8.5	10.7	11.6	11.2	11.3	5.5	8.8
$1,000–$1,250	10.9	12.3	10.9	10.8	9.9	8.4	9.8	8.9	10.6	11.1	12.1	10.5	11.6	6.7	9.1
$1,250–$1,500	9.6	10.4	9.3	9.3	9.1	8.3	9.0	8.7	9.8	9.7	11.1	9.4	10.5	6.9	9.5
$1,500–$1,750	8.5	8.7	8.3	8.2	8.3	8.6	8.8	8.3	9.5	8.7	9.2	7.8	8.5	6.3	9.8
$1,750–$2,000	7.6	7.4	7.4	7.4	7.4	8.6	7.8	7.7	9.2	7.6	8.2	6.8	7.5	6.3	6.8
$2,000–$2,500	11.3	10.5	11.0	10.9	11.7	14.5	11.8	12.4	13.4	11.6	12.0	10.0	11.4	10.9	12.4
$2,500–$3,000	6.7	5.9	6.3	6.9	7.1	9.1	7.2	7.8	7.9	6.8	6.4	5.1	6.2	8.1	6.2
$3,000–$4,000	7.2	6.0	7.0	7.6	8.1	9.9	8.0	9.2	8.6	6.9	6.8	5.9	6.9	9.3	7.5
$4,000–$5,000	3.0	2.3	2.8	3.2	3.6	4.5	3.4	4.0	3.2	2.9	2.6	2.4	2.7	4.8	3.3
$5,000–$10,000	5.2	3.6	5.0	6.0	6.2	7.9	6.7	7.8	5.8	5.0	3.8	4.3	4.5	8.5	7.8
$10,000–$15,000	1.8	1.1	2.0	2.0	2.4	2.7	1.7	3.3	2.2	1.6	1.2	2.3	1.4	5.9	1.9
$15,000–$20,000	1.2	.7	1.1	1.4	1.6	1.7	1.4	2.1	1.2	1.0	.7	2.9	.9	6.3	1.6
$20,000 and over	3.2	1.5	3.5	4.1	4.4	5.2	4.5	6.4	3.1	2.4	1.5	5.5	2.4	9.3	4.6
All levels	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] For explanation of items included in each category, see pp. 93–98.

TABLE 33A. *Share of each quarter of Nation's consumer units*[1] *in aggregate disbursements, 1935–36*

Category of disbursement[2]	Aggregate disbursements (in millions)				Percentage of aggregate disbursement for each category made by—			
	First quarter (incomes under $635)	Second quarter (incomes of $635 to $1,070	Third quarter (incomes of $1,070 to $1,715)	Fourth quarter (incomes of $1,715 and over)	First quarter	Second quarter	Third quarter	Fourth quarter
Current consumption:								
Food	$2,149	$3,454	$4,506	$6,756	12.7	20.5	26.7	40.1
Housing	1,059	1,659	2,310	4,478	11.1	17.5	24.3	47.1
Household operation	477	867	1,275	2,666	9.0	16.4	24.1	50.5
Clothing	406	811	1,230	2,814	7.7	15.4	23.4	53.5
Automobile	128	364	825	2,464	3.4	9.6	21.8	65.2
Medical care	181	324	520	1,180	8.2	14.7	23.6	53.5
Recreation	70	194	366	1,013	4.3	11.8	22.3	61.6
Furnishings	71	193	367	791	5.0	13.6	25.8	55.6
Personal care	106	182	261	483	10.3	17.6	25.3	46.8
Tobacco	88	181	268	429	9.1	18.7	27.8	44.4
Transportation other than auto	104	163	209	408	11.8	18.4	23.6	46.2
Reading	57	102	144	248	10.3	18.5	26.2	45.0
Education	18	47	88	353	3.6	9.3	17.4	69.7
Other items	21	46	76	164	6.8	15.0	24.8	53.4
All consumption items	4,935	8,587	12,445	24,247	9.8	17.1	24.8	48.3
Gifts and personal taxes[3]	104	282	512	2,169	3.4	9.2	16.7	70.7
Savings	−1,008	−456	199	7,243	−16.9	−7.6	3.3	121.2
All items	4,031	8,413	13,156	33,659	6.8	14.2	22.2	56.8

[1] Each quarter includes 9,864,575 families and single individuals, one-fourth of the total number. Residents in institutional groups are excluded.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

APPENDIX B

SOURCES AND METHODS USED IN THE STUDY

The material presented in this appendix describes the sources of data used as a basis for preparing the estimates of consumer expenditures shown in the preceding pages, and the methods employed in constructing the estimates. The procedures adopted at each stage of the work are set forth in considerable detail, so that readers interested in the more technical aspects of the study can interpret and evaluate the findings.

In the first section of this appendix, the major definitions and classifications used in the study are brought together, for convenience in reference. In the second section, the Study of Consumer Purchases—the major source of basic data—is briefly described. The following three sections discuss the construction of the sample expenditure patterns for various groups of the population, the methods used to extend them to cover all of the American people, and to derive the estimates of total national consumption in 1935-36.

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SECTION 1. DEFINITIONS AND CLASSIFICATIONS

The terms, concepts, and classifications used in this study were determined largely by the nature of the available sample data from the Study of Consumer Purchases. This study is described in some detail in section 2 of this appendix.

Since the present report deals primarily with the way in which consumers at different income levels allocate their incomes to the various classes of goods and services, to gifts and certain personal taxes, and to savings, it is of first importance to define these various categories of disbursement in terms of the items covered.

The Categories of Disbursement

As indicated above, three major classes of outlay are distinguished in this report, namely, current consumption, gifts and personal taxes, and savings. The algebraic sum of these three classes of outlay equals the total income [1] of the family or single individual.

The terms *outlay* and *disbursement* are often used synonymously in the text but are distinguished in the tables, where outlays for current consumption are divided into 14 major categories of disbursement, each covering a group of goods and services satisfying more or less closely related needs. These 14 categories of current consumption cover expenditures for food, housing, household operation, clothing, automobile, medical care, recreation, furnishings, personal care, tobacco, transportation other than automobile, reading, education, and other items. The *items of disbursement* included within each of these broad categories are partially listed on the expenditure schedules reproduced on pages 109 to 120, and are enumerated in more detail below.

The term *expenditures* is ordinarily used in the text and in the tables and charts to refer to expenditures for these 14 categories of current consumption only, exclusive of outlays for gifts and personal taxes and of savings. However, the *expenditure pattern* of a group of families includes not only the average disbursements for these 14 categories of consumption, but also the average outlays for gifts and personal taxes and the average savings of the families in the group.

The terms *spending pattern* and *consumption pattern* are used synonymously with expenditure pattern to refer to the complete set of average disbursements at different income levels for any component group of families or single individuals. The set of averages for each income class totals to the average income of the families or single individuals included within the income class.

Consumption expenditures include all money disbursements for current needs plus the imputed values of certain goods and services received without direct money expense.

Imputed values for items of nonmoney disbursement are included under housing expenditures for both urban and rural families, under food expenditures for all rural families, and under household operation for farm families.[2] Other goods and services received without direct money payment are omitted from the estimates, except for direct relief in kind.[3]

All purchases of consumers' goods made during the year, except payments on homes and structural additions and improvements to homes, are considered current expenditures, whether or not a balance remains due on them and whether or not the goods are entirely consumed within the current year. Payments on homes and payments on goods purchased in previous years are treated as changes in assets and liabilities, and hence appear in savings. The net purchase price of a commodity represents the expenditure for it. If a used article is given in trade for an article purchased, as for an automobile, the trade-in allowance is deducted in recording the expenditure. Excise and sales taxes are included in the purchase price of the articles on which they are levied. Certain other taxes, such as automobile fees and taxes on owned homes, are also merged with the expenditures for particular categories of consumption.[4] Discounts, refunds, and carrying charges are allocated to the specific items to which they apply, except, as sometimes in the case of cooperatives, when this was not possible. Tips are likewise included in the prices of the goods and services in connection with which they were rendered.

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[1] For definition of income, see pp. 99–100 below.

[2] For discussion, see pp. 94–95 below.

[3] For discussion, see pp. 99 and 131.

[4] For further discussion of treatment of taxes, see p. 98.

Food

Food expenditures include all purchased food and, for rural families, the imputed value of home-produced food as well.

Purchased Food.—Purchased food includes all meats, vegetables, fruits, milk, cereals, and other food products bought at grocery and other retail stores or markets or delivered to the home. It includes also ice cream, candy, chewing gum, soft drinks, beer, and other liquor, and such special foods as cod-liver oil, but it excludes food bought specifically for pets.

Food furnished to paid help and guests is included in the food expenditure of the family making the purchase, but meals furnished to boarders and, in the case of farm families, to farm employees are considered a business expense and are not included in the family food expenditures.[5]

Also classed in food expenditures are meals purchased away from home, including tips; lunches at school and work; food and drink purchased at places of entertainment; meals while traveling (except when paid for by employer) and while on vacation. Meals and other food and drink purchased for guests outside the home are included with the family expenditures. Board for persons away at school is also included in the food expenditure of the families supporting them.

Home-Produced Food.—The money value of home-grown produce is included in food expenditure for families on farms and in villages. For urban families food expenditure includes only money expense. Information on the home-produced food consumed by rural families was obtained on the "family" schedule[6] in the Study of Consumer Purchases. The prices used in imputing values to such food items were separately estimated for each locality, and were based on the prices customarily paid for products of similar quality purchased from neighbors or from the most likely place of purchase.

Housing

Prevailing differences in the rental arrangements for farm and nonfarm homes, and minor differences in other elements of housing expense are reflected in the estimates for this category of disbursement, which also includes imputed values as well as direct money expense.

It should be noted that expenditures on housing are measured when the service is actually rendered by the durable agents, unlike all other durable goods, which are assumed to pass the "consumer frontier" when sold to the consumer. Purchases of houses, therefore, were treated as investments and appear in savings in the estimates presented in this report. "Improvements and additions" were likewise treated as investments, but the terms were defined so narrowly that the item is a small one. Substituting an oil furnace for a coal furnace, for instance, was included in current housing expenditure as a replacement. Storm windows are included in furnishings. Only such major changes as adding a new room or a porch are included as improvements.

Nonfarm Homes.—For nonfarm renting families, housing expense equals rent, less rental concessions, plus the cost of any repairs paid for by the renting family. Rent payable on all homes (including vacation homes) occupied during the year is included, but not rent on houses not occupied, as, for example, when the family was unable to break a lease. In urban communities, payments for rent not infrequently covered all or part of the expense for heat, light, and refrigeration. In such instances, no attempt was made to estimate the portion of total rent attributable to these operating expenses. The entire rent payment is included in housing.

For nonfarm owning families, the total of money and nonmoney expenditures for housing is the estimated rental value of the home for the months occupied by the owners. The total cost is, therefore, comparable with the expenditure made by renting families. This total consists of two parts: (1) The ownership expense, which includes interest on mortgages and refinancing charges, taxes and special assessments, repairs and replacements (as distinct from additions and improvements), and fire and other insurance; and (2) the imputed value of home ownership, which is simply the estimated rental value minus the ownership expense. The imputed value is negative if ownership expense exceeds the estimated rental value for the months occupied, as it frequently does in the case of vacation homes.

Farm Homes.—Since farm homes are seldom rented separately from the farm on which they are located, the value imputed to the ownership of a farm home was not estimated directly, but was obtained by estimating the value of the home itself and taking a flat percentage of this amount. The figure used was 9 percent, except in the South and in California, where 10 percent of the value of the home was used as the imputed value of ownership. Ownership expense on owned farm homes includes repairs and insurance, but not interest and taxes, since these two items are usually paid for farm and home as a unit. Total money and nonmoney expense for housing is simply the sum of these two independently estimated quantities. Money expense on vacation homes is included, but the value of ownership of vacation homes was not estimated in the case of farm families. It should be noted that ownership of vacation homes by farm families is comparatively rare.

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[5] The deduction was made in the data from the Study of Consumer Purchases by: (1) Listing all persons eating at the family table and the number of food cost units each represents (an adult equals one unit; other persons were classed according to food requirements.); (2) estimating the number of meals each person ate at the family table; (3) multiplying (1) by (2) for each person; (4) calculating the ratio of the "food cost unit meals" furnished to boarders or farm help to the total "food cost unit meals" furnished from family funds; and (5) applying this ratio to the total expenditure of the family for food eaten at home to obtain the deduction from food expense.

[6] The family schedule is the schedule on which income data were obtained. See pp. 105–106 and 107.

For farm renting families, the housing figures represent largely the imputed rental value of the farm dwelling. This value was calculated, as in the case of farm owners, by taking a flat percentage of the estimated value of the home. Eleven percent of this amount was put down as imputed housing expense,[6a] except in the South and in California, where 12 percent was used. Thus, contrary to the procedure for nonfarm renting families, the entire housing expense for farm families is recorded as nonmoney expense, except for occasional expenses for minor repairs incurred directly by the renting family.

Other Housing.—The value of housing received free or as a payment for services, as in the case of ministers, is included in nonmoney housing expenditure.

The cost of lodging while traveling (except on business) or on vacation is also included in housing expense. Dormitory and other lodging costs at school are counted as housing expense for the family paying the expenses of the student.

Household Operation

The most important items in household operation expenses are heat, light, refrigeration, and motor power, bought in the various forms of coal, coke and briquettes, wood and kindling, fuel oil, kerosene and gasoline (except for automobile or cleaning purposes), electricity, natural and manufactured gas, and ice. As indicated above, part or all of the costs of heat, light, and refrigeration for urban familes were often included in the rent paid for the house or apartment, and do not appear in household operation expenses.

Fuel and ice received without direct money payment are included in household operation expense for farm families only. These nonmoney items include wood gathered, and ice cut and stored. Electricity generated by individual households is not included in the estimates, but any fuel used in the generator is included as an expense for household operation.

Expense for household help, including cooks, maids, nurses, gardeners, chauffeurs, and other household servants (but not paid help for sewing), are included in household operation expenditure. All expenses other than food and lodging for these servants are covered in this category, including clothing furnished them, gifts of other goods, and tips at Christmas or on other occasions. Tips to janitors and other servants of apartment houses are also included in household operation expenses.

Telephone charges; water rent; laundry sent out; laundry soap (but not toilet soap), starch, bluing, and cleaning supplies (but not mops, brooms, cloths, etc.); stationery, greeting cards, etc.; pens, ink, and pencils for general household use (but not for school use); express, freight, drayage, and moving of household goods owned by families (but not express charged by mail order houses or transportation of business supplies) account for most of the remaining expense for household operation.

A group of miscellaneous items, however, is also included in this category: Disinfectants for household use; scouring powder, steel wool, and scouring pads; rubber gloves; floor wax, furniture polish, silver polish, metal and other polishes; matches; toilet paper, shelf paper, wax paper, paper towels, paper napkins (but not cleaning tissue and other sanitary supplies); clothespins and clotheslines; shoe brushes and clothes brushes; post-office boxes; flower seeds, plants, and grass seed (but not seed for vegetable gardens); garden supplies (but not tools, which are in household furnishings); fresh (but not artificial) flowers for household use.

Clothing

Clothing expenditures include costs of all wearing apparel, including work clothes and sports clothes, but not sports equipment and not crutches, braces, eyeglasses, and other physical aids. The category also includes umbrellas; purses, handbags, etc.; watches, jewelry, and other personal ornaments, including flowers for personal wear (but not at weddings and funerals). In addition, the costs of materials and paid help for sewing, cleaning and pressing of clothing, shoe shines, shoe polish, and rent for any articles of clothing are included under this heading.

Automobile

Automobile expenditures include both purchase and upkeep. The net price (that is, less trade-in allowance and discounts) of new and used cars constitutes the purchase price. Upkeep includes gasoline, oil, tires and tubes; accessories, including automobile radios; repairs, replacements, and service; garage rent, licenses, registration fees, and other taxes on automobiles or accessories; fines and damages paid to others; all types of automobile insurance; tolls; and motor association dues.

[6a] The figure of 10 percent given on p. 41 of the report *Consumer Incomes in the United States* should have read 11 percent.

Automobile expense chargeable to business is not included in the expenditures presented in this report. In the Study of Consumer Purchases, the proportion of total automobile expense chargeable to business was obtained from each family and the amount deducted from the total expenses reported by the family.

Medical Care

Medical care includes expenditures for services of physicians, dentists, optometrists, and other practitioners providing health services; hospitalization costs; nursing service in hospital or at home; clinic treatments; laboratory examinations and tests. It also includes costs of medicines and drugs, such as aspirin, rubbing alcohol, vaseline, laxatives, and supplies commonly found in first-aid kits (but not foods, such as cod-liver oil, or dentifrices, mouthwashes, etc.); eye glasses, hearing aids, crutches, braces, elastic stockings, and other physical aids; hot water bottles, nose droppers, clinical thermometers, and other medical appliances and supplies. In addition, it includes health and accident insurance, whether taken out of wages by employer or paid as part of dues to fraternal and other clubs.

Recreation

Recreation expenditures include paid admissions to movies, plays, pageants, lectures, concerts, ball games, fairs, dances, circuses, etc., for members of the economic family and for guests. Also included in this category are equipment and supplies (but not clothing), fees, and licenses for hunting, baseball, and other sports and games; field glasses and opera glasses; net gambling losses,[7] lottery tickets, etc.; purchase (net price) and upkeep of radios (but not automobile radios), musical instruments, including phonographs (but not if for professional use by musicians), phonograph records and sheet music (not for music lessons); cameras, films, and other photographic supplies and equipment; photographs; children's toys, picture books (but not school books) and play equipment, such as swings, sand boxes, etc.; purchase and upkeep of vehicles other than automobiles used primarily for pleasure (but not for business or transportation) such as bicycles, motor-boats, riding horses, etc.; purchase and care of pets; favors, prizes, balloons, etc., for parties; dues to social and recreational clubs (but not business or professional associations); expenses for stamp collections and other hobbies.

Vacation expenses are not included in recreation unless they fall in one of the above classifications. They are allocated among food, lodging, transportation, and other categories. Similarly, allowances and spending money for children at school are included in recreation expenditures only if it was not possible to obtain any breakdown according to the actual categories for which the money was expended.

Furnishings

Furniture, including chairs, tables, desks, sofas, beds, bedsprings, dressers, chests, cupboards, bookcases, folding screens, smoking stands (but not radios, phonographs, pianos, and other musical instruments) constitutes the major group of items in house furnishings and equipment.

Kitchen, laundry, and cleaning equipment form another large subclassification in household furnishings, including among other items: Refrigerators, kitchen stoves, cooking utensils, electric toasters and coffee percolators, washing machines, irons, ironing machines, ironing boards, dishpans, dishcloths, mops, brooms, dustpans, carpet sweepers, vacuum cleaners, and other laundry and cleaning equipment (but not laundry soap, cleaning supplies, etc.).

Floor coverings and household textiles—rugs, linoleum, curtains, mattresses, pillows, pillow cases, blankets, sheets, sleeping bags, other bed coverings, cushions, runners, towels, tablecloths, napkins, etc., are also included, as are fans, clocks, typewriters (unless used for business purposes), lamps, electric light bulbs, electrical supplies, mirrors, pictures, vases, artificial (but not fresh) flowers, and other decorations and ornaments for general household use (but not ornaments bought specifically for parties, weddings, funerals, etc.).

Other items in the category are: Glassware, china, and silverware; window screens, window shades, venetian blinds, and storm windows; furnaces and other heating equipment; warming pads and other household electrical appliances not mentioned above (but not electric razors); scales; shoe trees; household (but not clinical) thermometers; lawn mowers, garden tools and equipment, household tools and hardware; trunks and hand baggage; baby carriages and go-carts.

Also included in furnishings are household insurance (but not personal property taxes); repairs and cleaning of house furnishings, together with materials for such cleaning; and paid help for the sewing of draperies, slip covers, and other household textiles.

Personal Care

Service items included in personal care are haircuts, shaves, shampoos, waves, manicures, facial massage, and other services at barber shops and beauty parlors. Goods in this category include dentrifices, dental floss, and mouthwashes (but not drugs, such as aspirin, or medicines); toilet soap, shaving soap and cream, cold cream and other face creams and lotions; nail polish, perfume, powder, rouge, and other cosmetics; talcum powder and after-shaving preparations; cleansing tissue and other sanitary supplies. Hairbrushes, combs, nail files and nail scissors, razors and other shaving equipment, tooth brushes, and powder puffs are also included.

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[7] Net gambling gains are included as income.

Tobacco

Tobacco expenditures include purchases of all forms of tobacco—cigarettes, cigars, smoking tobacco, chewing tobacco, and snuff—together with smokers' supplies, such as pipes, pipe cleaners, cigar and cigarette holders, humidors, tobacco pouches, lighters, and matches used for smoking (but not matches for kitchen use), ashtrays, and other smokers' supplies (but not smoking stands or smoking jackets).

Transportation Other Than Auto

Expenses for travel and transportation of persons by means other than owned automobiles are included in the category of other transportation,[8] except for the portion of such outlays deductible as business expense. Transportation to and from work was not deducted and is covered by the estimates. The deductions for business transportation were made in the Consumer Purchases Study by the same procedure used in the case of automobile expense—that is, separately for each family interviewed on the basis of its own estimates.

In addition to the costs of transportation to and from work, the category includes the costs of all local transportation to school, stores, etc., whether by bus, trolley, taxi, train, ferryboat, or rented automobile. It includes other travel by railroad, interurban bus or trolley, or other vehicle except owned automobile. In the case of vacation cruises and other trips, where transportation and other expenses are quoted as a lump sum, only the costs of transportation are included in this category. An estimated break-down of such over-all figures was obtained in the Consumer Purchases Study.

Purchase and upkeep of motorcycles, horses, carriages, bicycles, boats, etc., used primarily for transportation (but not primarily for recreation, or almost entirely for business purposes, as, for example, a work horse on a farm) is also included in this category.

Reading

Reading expenses include the purchase of newspapers, magazines, and books, with the exception of school books, picture books for very small children, and business and professional books and journals. This category also includes membership and rental fees to circulating libraries and fines for overdue books and magazines

Education

Expenditures for education include tuition and special fees at schools and colleges (except athletic and infirmary fees) but not room rent, board, and other expenses of students at school. Tuition fees are considered to fall due at the beginning of the period covered by them, and the full amount of such fees is included if this date is within the year covered by the study. Education expenses also include books and supplies, such as pens, ink, notebooks, etc., used at school, but not toys and playthings used at play schools. Correspondence courses and special lessons, whether of an intellectual nature or not, are also included, such as lessons in music, dancing, bridge, public speaking, knitting, swimming, fencing, and other sports, and religious instruction if paid for separately from contributions to Sunday school and church.

Other Items

The last category of disbursement for current consumption includes certain miscellaneous expenses, most of which are of infrequent occurrence. The principal items covered are interest on debts incurred for family living (other than interest on mortgage of home and carrying charges for purchase of specific articles); bank service charges and rental of safe deposit boxes, including the Federal tax; legal expenses (not for business purposes or in connection with refinancing mortgage on home); money lost or stolen (but not gambling or business losses); installment payments made on furniture, automobile, and other goods repossessed; rent paid on a dwelling not occupied (as, for example, when lease could not be broken), and bad debts "written off" during the year; expenses for funerals and the purchase and upkeep of cemetery lots; seed and other expenses for food produced and consumed at home by nonfarm families (but not grass and flower seed).

Gifts

Contributions to the support of persons outside the economic family, and donations to eleemosynary institutions, including churches, Sunday schools, missions, community chests, universities, and the like constitute the bulk of this category of disbursements. Gifts made to persons outside the economic family on special occasions, such as Christmas, birthday, wedding, confirmation, and graduation gifts, and flowers, candy, and other gifts to hostesses are among the items in this category. Gifts exchanged among members of the same economic family do not appear in this category but are allocated to the various categories, like other expenditures for consumption goods.

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[8] Expenses for rented automobiles are included in this category.

Direct Personal Taxes

Only personal income taxes, poll taxes, and certain personal property taxes are included in the tax estimates presented in this report. Other taxes, such as excise and sales taxes, paid by consumers are merged with the expenditures for the goods and services to which they apply. Taxes on business operations and on income-producing property were deducted in estimating net income. Taxes falling due within the year covered are included as disbursements, whether paid at that time or not.[9] In the case of income taxes, this means that the taxes paid by each family and single person are based on the income of a 12-month period ending earlier than the year covered by the estimates in the present report.

Savings

The savings estimates presented in this report reflect changes in assets and liabilities, and may be either negative or positive. In general, the savings category covers three groups of items: (1) Purchases of certain consumer goods and services, namely, purchases of houses and that part of life-insurance premiums and other payments which constitute a charge for selling and bookkeeping costs; (2) purchases of producer goods, such as farm equipment and other direct investments in business; and (3) insurance payments, increases in bank accounts, payment of debts, purchases of stocks and bonds and other investments not directly involving any transfer of goods.

Savings are the algebraic sum of the following items: Net increases or decreases in cash on hand and in banks; net increases or decreases in investments in business; purchases less sales of real estate (whether for family use or not); stocks and bonds and other property; additions and improvements (but not repairs and replacements) on houses and other real estate;[10] premiums on life insurance, endowment policies, and annuities, less the value of policies surrendered and settled; net increases or decreases in loans due from persons outside the economic family; net increases or decreases in the quantity of crops and livestock stored for sale on farms; net increases or decreases in mortgages and notes; net increases or decreases in back rents and back taxes; and net increases or decreases in charge accounts, installment balances, and other bills due.

Savings do not include capital gains with the exception of those resulting from the purchase and sale of a given asset within the period of the schedule year. Other realized capital gains appear as negative savings if the profit is spent, but if reinvested or left in the bank, the purchase of the new asset (or increase in cash in banks) cancels the sale of the old and there are no net savings. Unrealized capital gains do not appear as either positive or negative savings. Depreciation of owned homes or other assets was not estimated, and hence is not reflected in savings.

Miscellaneous Definitions

In addition to the categories of disbursement, certain other terms used throughout this report require explanation. Many of these terms were fully defined in the previous report, *Consumer Incomes in the United States*, but have been summarized here for convenient reference.

Consumer Unit

As in the report on consumer incomes, the analysis of the consumption demands of the American people has been made in terms of spending or consumer units, rather than individual consumers.

Three main types of consumer units are distinguished in the report: The family, the single individual, and the institutional group.

Since the majority of persons live in family groups, with expenditures for food, shelter, and many other commodities and services incurred jointly for all members, the family is the major economic unit determining the utilization of income for consumption purposes. The *family*, as defined in this study, consists of two or more persons living together as one economic unit, having a common or pooled income and living under a common roof. Usually, of course, members of the economic family are related by blood, marriage, or adoption, but they may be unrelated persons maintaining a joint home, provided they share a joint income.

In accordance with this definition, sons and daughters living with their parents but paying for board and lodging and not pooling their incomes in the common family fund are classified as single individuals, rather than as members of the family. On the same basis, sons and daughters away at school or for other reasons living away from home for all or part of the year, but dependent on the family income for at least three-quarters of their support, are classified as members of the family.

This definition of the economic family follows that adopted in the Study of Consumer Purchases,[11] and it should be noted that it differs somewhat from the definition of family used by the United States Bureau of the Census.[12] According to the definition followed in this study the number of persons living as members of family groups in 1935–36 is estimated at 115,966,000 out of the total population of 128,024,000, and the number of families is estimated at 29,400,300.[13]

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[9] Payments on back taxes are not included with current outlays but appear as a decrease in liabilities.

[10] Additions and improvements on homes occupied by owners were defined very narrowly. See p. 94.

[11] For a more complete definition of the "economic" family unit, see reports on Study of Consumer Purchases issued by the Bureau of Home Economics and the Bureau of Labor Statistics.

The *single individual*, as defined in this study, is an unattached person maintaining an independent economic status. Single individuals thus include all persons maintaining independent living quarters, or living as lodgers or servants in private homes, or as roomers in lodging houses and hotels. Although most members of the group are "single," both with respect to marital status and economic status, the group also includes some married persons and persons widowed, divorced, or separated.

The number of single individuals so defined is estimated at 10,058,000 in 1935–36, or 7.8 percent of the total population. Approximately 6,538,000, or 65 percent of the total, were men and 3,520,000 were women.[14]

The *institutional group*, the third type of consumer unit distinguished in the study, consists of the residents of institutions "proper," including mental and physical defectives, dependent and delinquent children, dependent aged and poor, and inmates of prisons and reformatories, and persons living in various quasi-institutional groups—at Army and Navy posts, in Civilian Conservation Corps and labor camps, and in crews on vessels. These institutional residents cannot be considered as independent spending units comparable to single individuals, since their incomes are received, in whole or in part, as subsistence and care supplied by the institution. The institutional group itself thus constitutes the spending unit.[15]

The number of institutional residents in 1935–36 is estimated at approximately 2,000,000. Of these, 1,200,000 were residents of institutions proper, and 800,000 were members of quasi-institutional groups.

Income

The definition of income used in this study follows that of the Study of Consumer Purchases. It includes the total net money income received during the year by all members of the economic family, plus the value of certain items of nonmoney income. Facsimiles of the income schedules used in the Study of Consumer Purchases, presented in the previous report, *Consumer Incomes in the United States*, show the various items of income covered.[16]

Money income comprises the net earnings of all family members, including work relief earnings and earnings from roomers and boarders and other paid work in the home; net profits from business enterprises operated or owned by the family, and from property bought and sold within the year; net rents from property; interest and dividends from stocks, bonds, and other property; pensions, annuities, and benefits; gifts in cash insofar as these are used during the year for current living expenses; income received as rewards, prizes, alimony, or gambling gains, and money received as direct cash relief.[17]

In calculating net income from earnings and from property, business and occupational expenses, including all taxes on income-producing property and on business operations, have been deducted. Direct personal taxes, such as income, property, and poll taxes, have not been deducted. Business losses, exclusive of paper losses, have also been deducted in calculating net income.

Excluded from net money income are gains and losses from the sale of capital assets owned at the beginning of the schedule year; inheritances, with the exception of that part of cash inheritances used for current living expenses; soldiers' bonus payments (with minor exceptions) and funds obtained through borrowing.

Nonmoney income, for all groups of families, includes the net value of the occupancy of an owned home and rent received as pay, as well as the estimated value of direct relief received in kind. For farm and village families, it includes, in addition to these items, the net imputed value of food produced at home for the family's own use. For farm families it also includes the net imputed value of certain other farm-produced goods used by the family—i. e., fuel, ice, tobacco, and wool—plus or minus the value of any increase or decrease in the amount of livestock owned or of crops stored for sale. Except for owned homes, no attempt was made to include as nonmoney income the value of the use of durable goods owned by the family, such as automobiles, furniture, and household equipment.[18]

Minor variations in the calculation of certain items of income, as recorded on the family and the expenditure schedules in the Study of Consumer Purchases, resulted in some shifts in the income classification of families included in both the income and the expenditure sample data, but since the items affected were small in amount, the shifts in income class were relatively few and insignificant. A full explanation of these differences is given in section 5 of this appendix.[19]

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[12] For a brief discussion of the differences, see *Consumer Incomes in the United States*, p. 40.

[13] For further discussion, see *Consumer Incomes in the United States*, pp. 71–72.

[14] For further discussion, see *Consumer Incomes in the United States*, pp. 77–78.

[15] For further discussion, see *Consumer Incomes in the United States*, p. 90.

[16] See pp. 49–50.

[17] This item of income was not recorded on the income schedules but the relief income distributions were corrected to add the estimated value of direct relief in both cash and kind. For discussion, see *Consumer Incomes in the United States*, pp. 62–66.

[18] For methods of estimating the imputed value of nonmoney items of income, see pp. 94–95 above, and *Consumer Incomes in the United States*, p. 41.

The Year Covered

The consumption estimates presented in this study relate to the 12-month period ending June 30, 1936. This year was chosen because the majority of the schedules collected in the Study of Consumer Purchases covered approximately that same 12-month period. Some schedules contained information for the calendar year 1935, while others, covering the year immediately preceding the date of interview, contained information for a 12-month period ending somewhat before or after June 30, 1936. In no case did the schedule year end prior to December 1935 or later than December 1936.

Relief and Nonrelief Groups

Families and single individuals were classified in the Study of Consumer Purchases as receiving relief if they received any direct or work relief from any source at any time during the year covered by the estimates.[20]

Obviously, under such a definition, many families were designated as relief families, even though they had been largely self-supporting during the year, and had received only a small portion of their annual income from relief sources. Some families may have been on relief for only a few days and have received relatively high incomes from employment during the balance of the schedule year. Other families classified as relief families may have received only one allotment of surplus commodities during the year. This inclusiveness of the relief classification must be kept in mind as minimizing the probable error introduced in the consumption estimates by applying nonrelief spending patterns to the relief group.[21]

Geographic Regions

As indicated by the map on page 103, five geographic regions were used in building up the national estimates presented in this report. It should be noted that the grouping of states within these regions—New England, South, North Central, Mountain and Plains, and Pacific—differs somewhat from the usual Census groupings.[22]

Types of Community

Six types of community were used in building up the national consumption estimates: Metropolises of over 1,500,000 population; large cities, 100,000 to 1,500,000; middle-sized cities, 25,000 to 100,000; small cities, 2,500 to 25,000; rural nonfarm communities under 2,500, and farm areas. It should be noted that the population ranges used in this study for the various degrees of urbanization were somewhat wider than the actual size ranges of the sample communities covered in the Study of Consumer Purchases.[23]

The break between middle-sized and small cities was maintained in this report only in preparing the estimates of various types of gifts made by families and of direct personal taxes.

In three geographic regions—the North Central, the Mountain and Plains, and the Pacific—the farm population was subdivided, along state lines, to obtain the population weights for the different types of farming for which sample consumption data were available.[24] The states included within these various subregions are indicated in the tabulation on pages 125–126.

Color and Nativity Groups

Consumption data were collected in the Study of Consumer Purchases from only native-born white families in most sample communities and from native-born Negro families in the South and in New York City and Columbus, Ohio. A family was classified as foreign-born if either husband or wife—or the male or female head of the family—was born outside the United States. Mulattoes and others of Negro-mixed blood were classified as Negro. Families of other color or race included Mexican, Indian, Chinese, Japanese, Filipino, Hindu, and Korean, and mixtures of these races with others.

In building up the family consumption estimates in the present report only two color-nativity groups have been distinguished—white families and Negro and other color families.[25]

Normal and Broken Families

The sample consumption data available from the Study of Consumer Purchases covered only normal families—that is, families containing both a husband and a wife, with or without other persons in the family. Any family not containing both a husband and a wife was considered a broken family.[26]

Family Size and Composition

In building up the national consumption estimates in this report, families have been classified into three size groups—families of two persons, families of three to six persons, and families of seven or more persons. Although the grouping is based upon the family-type classification used in the Study of Consumer Purchases, it ignores, for the most part, the differences in sex and age composition of families containing the same number of persons. Descriptions of the family types for which consumption data were available and of the procedures followed in combining and weighting the data to obtain estimates for the three family-size groups are given in section 3 of this appendix.[27]

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[19] See pp. 149–150 below.

[20] For discussion of various types of assistance included as direct and as work relief, see *Consumer Incomes in the United States*, p. 42.

[21] For discussion, see pp. 130–131 below.

[22] For list of states included within each region, see *Consumer Incomes in the United States*, p. 42.

[23] See *Consumer Incomes in the United States*, p. 43.

[24] For further discussion, see *Consumer Incomes in the United States*, p. 43, and also the tabulation pp. 125–126 below.

[25] For procedure used in estimating consumption of foreign-born and other color families, see p. 127.

[26] For procedure used in estimating consumption of broken families, see p. 127.

Occupational Grouping

Seven broad occupational groups were represented in the sample consumption data collected in the Study of Consumer Purchases and utilized in building up the national consumption estimates presented in this report: (1) Wage-earner, (2) clerical, (3) independent business, (4) salaried business, (5) independent professional, (6) salaried professional, and (7) farming.[28] Farm families of each color group in the Southern region were subdivided into operators and sharecroppers. The occupational classification was made according to the major source of family earnings, i. e., if members of the family received earnings from two or more occupations the family was classified according to the group from which the greater proportion of total family earnings was derived.[29]

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[27] See pp. 124–125.

[28] No attempt was made to collect consumption schedules from the "all other" occupational group recognized in the income sample. This group included farm operators in villages or cities, persons with no earnings from occupations, and persons of unknown occupation. In building up the national consumption estimates, the population weights for families belonging to the "all other" group were applied against a consumption pattern for all the other nonfarm occupational groups combined.

[29] For description of the coverage of the various occupational groups, see *Consumer Incomes in the United States*, p. 44.

SECTION 2. THE STUDY OF CONSUMER PURCHASES

The basic data used in preparing the family spending patterns presented in this report were those collected in the Study of Consumer Purchases. The patterns for single individuals are also based partly on data from that study. It therefore seems advisable to present here a brief description of the scope and nature of the Study of Consumer Purchases and of the methods used in collecting and tabulating the sample data.[1] More detailed descriptions of the sampling procedures used in the study appear in reports for specific sample communities issued by the two Federal bureaus responsible for the administration of the project.[2] These reports should be consulted by readers interested in further information regarding the methodology of the study or in the findings for specific communities.[3]

Purpose of the Study

The study was undertaken in order to provide more adequate and comprehensive data on the incomes and expenditures of American families. None of the earlier studies in this field had been broad enough to supply information on a Nation-wide basis, representative of the various economic and social groups in the population. The project was planned to meet the need for such information. It covered a large and extensive sample of families living in cities of various sizes, in villages, and on farms in several areas of the country.

The major purpose of the study centers in the analysis of the effects of certain factors—region, degree of urbanization, color, family composition, occupation, and income—on the way in which American families spend their incomes. This purpose, therefore, determined the choice of communities covered by the project, the character and size of the sample, and the definitions and classifications used in obtaining and tabulating the data.

Many of these definitions and classifications have been carried over from the survey to the present study of consumer expenditures. A brief discussion of some of the more important points in these definitions has been presented in the preceding section of this appendix.

Administration of the Study

The study was conducted by the Bureau of Home Economics of the United States Department of Agriculture and the Bureau of Labor Statistics of the United States Department of Labor, with the cooperation of the National Resources Committee, the Central Statistical Board, and the Works Progress Administration. The plans for the project were formulated by the Consumption Research staff of the National Resources Committee and the staffs of the two bureaus, with the advice of the two other cooperating agencies.

The funds for the study were supplied by the Works Progress Administration, and the data were collected and tabulated with the aid of workers selected from Works Progress Administration rolls. The field work was started in the early spring of 1936 and terminated at the close of that year.

The administrative direction of the study was divided between the two bureaus, the Bureau of Home Economics conducting the survey in rural farm and nonfarm areas and in the majority of the small cities covered, and the Bureau of Labor Statistics assuming responsibility for the other small cities and for all of the larger urban communities. The project was carried out by the bureaus under the guidance of a Steering Committee composed of representatives of the five cooperating agencies and with the aid of a Technical Committee similarly composed.[4]

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[1] This description follows in part the description of the Study presented in section 2 of Appendix A of the report *Consumer Incomes in the United States.*

[2] A series of preliminary mimeographed releases has been issued by each bureau, presenting a few selected tables summarizing the results of the basic tabulations. Two printed reports have been issued to date: Monroe, Day; Weber, Marjorie S.; and Hollingsworth, Helen; *Family Income and Expenditures, Pacific Region, Part One, Family Income,* Study of Consumer Purchases: Urban and Village Series, Bureau of Home Economics, U. S. Dept. of Agriculture, Miscellaneous publication 339, 1939, 380 pp; and Kaplan, A. D. H.; Williams, Faith M.; and Wulff, Erika H.; *Family Income and Expenditure in Chicago, 1935-36, Vol. I, Family Income,* Study of Consumer Purchases: Urban Series, Bureau of Labor Statistics, U. S. Dept. of Labor, Bulletin No. 642, 1939, 210 pp.

[3] An interim report of plans for the study, prepared by the Consumption Research staff of the National Resources Committee, with the cooperation of the Economics Division of the Bureau of Home Economics and the Cost of Living Division of the Bureau of Labor Statistics, was issued in mimeographed form in January 1936. For other discussions of the study, see the following articles: Kneeland, Hildegarde; Schoenberg, Erika H.; and Friedman, Milton; "Plans for a Study of The Consumption of Goods and Services by American Families," the *Journal of the American Statistical Association,* Vol. 31, March 1936, pp. 135–140; Kaplan, A. D. H.; "Consumer Purchases—Some Results of a National Study," *Proceedings of the Boston Conference on Distribution,* September 29, 1936; Monroe, Day; "Analyzing Families by Composition Type With Respect to Consumption," the *Journal of the American Statistical Association,* Vol. 32, March 1937, pp. 35–39; and Schoenberg, Erika H., and Parten, Mildred; "Methods and Problems of Sampling Presented by The Urban Study of Consumer Purchases," the *Journal of the American Statistical Association,* Vol. 32, June 1937, pp. 311–322.

Communities Covered by the Sample

The communities covered by the study include 51 cities, 140 villages, and 66 farm counties. In all, 30 States are represented in the sample. The location of the communities is shown on the accompanying map.

These communities were selected in such a way as to provide a basis for comparisons between different regions of the country, between different degrees of urbanization, and between different types of farming. Since the number of communities which could be included was not sufficient to cover adequately all of the major geographic areas or all sizes of community, it was necessary to concentrate the sample in a few fairly homogeneous areas and in communities of certain size ranges. It was also necessary to restrict the farm sample to sections representing the more important types of farming. This procedure was adopted to facilitate clear-cut comparisons in analyzing the effect of the various factors influencing the consumption habits of the population.

In accordance with this policy, the urban sample was located within six geographic regions, fairly closely defined—New England, East Central, West Central, Southeast, Rocky Mountain, and Pacific Northwest. Within each region, the sample included one large city, two or three middle-sized cities, and from four to nine small cities. In addition, two very large cities—New York and Chicago—were included to provide a picture of metropolitan living.

The rural sample was selected to include two or more groups of villages and two or more groups of farm counties within each of these six regions, with additional rural sections located outside of these areas. In carrying out the study it was found necessary, for administrative reasons, to make some changes in the original list of communities, which led to a regrouping of the farm and village areas and of the small cities in the West Central region, those in the eastern half of this

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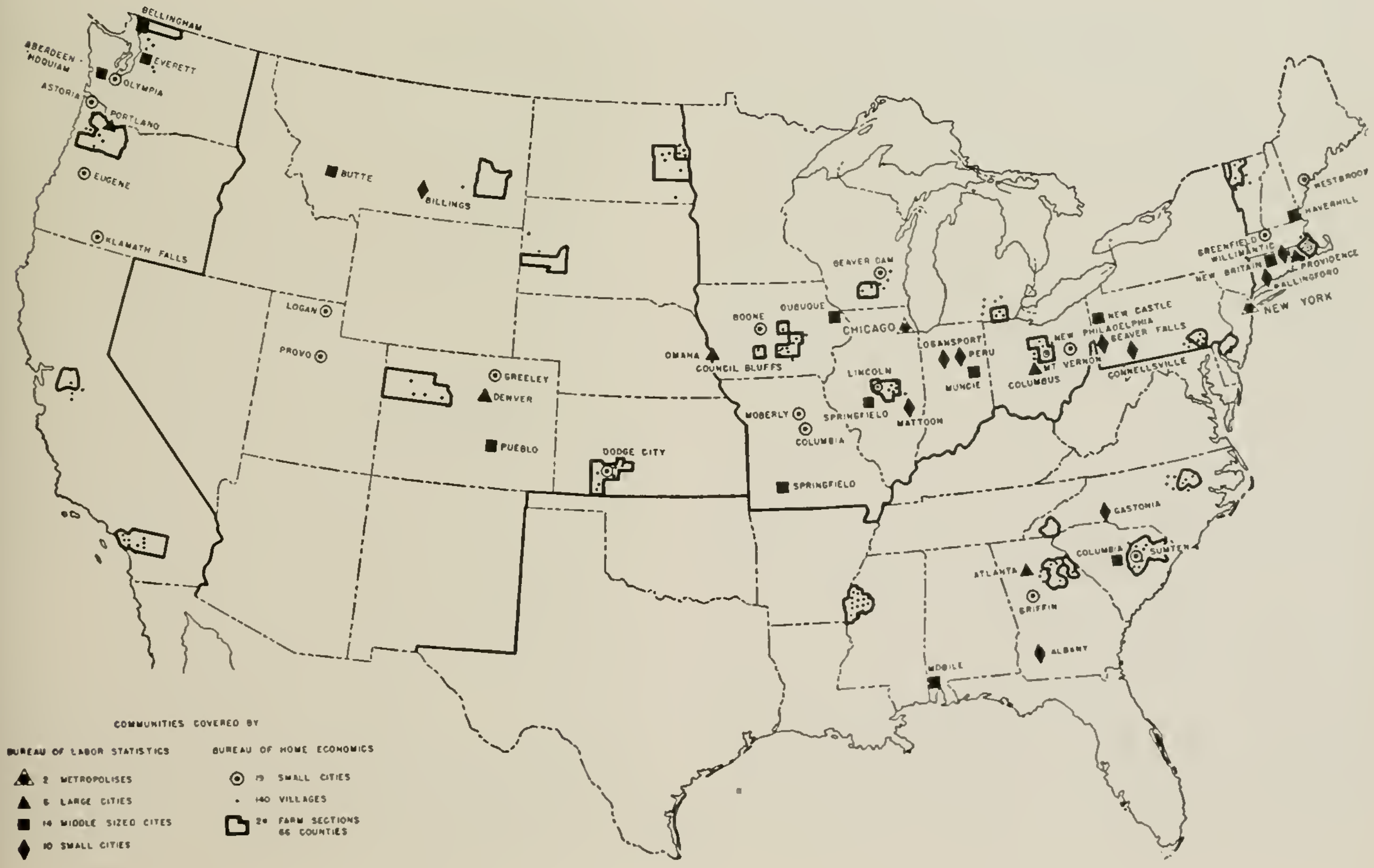
[4] For membership of these committees, see footnote 7, p. 3.

COMMUNITIES COVERED IN STUDY OF CONSUMER PURCHASES



region being combined with the East Central region, and those in the western half with the Mountain States.

This revised regional grouping has been followed in utilizing the data in the present study of consumer expenditures. The boundaries of the five regions are indicated on the map.

The size ranges of the cities and villages covered in the Study of Consumer Purchases, as shown by the 1930 Census of Population, are as follows:

Type of community	Number	Population range
Metropolises	2	3, 376, 438–6, 930, 446
Large cities	6	252, 981– 301, 815
Middle-sized cities	14	30, 567– 71, 864
Small cities	29	9, 370– 18, 901
Villages [1]	140	544– 5, 183

[1] Effort was made to select villages of 1,000 to 2,500 population. For administrative reasons, however, it was necessary to choose a number of villages of less than 1,000, and a few of approximately 3.000 with 1 (Camden, S. C.), of slightly over 5.000.

A list of the particular cities, villages, and farm counties included in the sample is given below. The rural communities are grouped by States within the five geographic regions, and for the farm sample the dominant type of farming prevailing within each group of counties is also indicated.

The sample data from all of the villages were utilized in preparing the present estimates of consumer expenditures, but data from 7 cities and from 10 farm counties were omitted, and the data from 25 small cities were utilized only in ascertaining the outlays made for personal taxes and for various types of gifts. The omission of schedules from certain communities was made because of limitations in time available for preparing the estimates and because their inclusion would not have added materially to the reliability of the estimates. The communities for which sample data were not utilized are indicated by footnotes to the list. A discussion of the tests made to determine the effect on the estimates of the omission of schedules from these sample communities is included in section 3 of this appendix.

Sampling Procedures

Both random and controlled sampling methods were used in the study, three distinct samples being taken in obtaining the data. The information was obtained by field agents, through personal interviews with the housewife and other members of the family.

The Record Card Sample

A random sample of all types of families was first taken in each community selected for study, each dwelling unit being given an equal chance of inclusion. This sample varied from a coverage of approximately 4 percent in New York City to a 100 percent coverage in most small cities and in all villages. A record card was filled out for each family interviewed, supplying information on the color and nativity group to which the family belonged and on the composition of the family, and certain other information necessary for the selection of families to be interviewed in the second or income sample.

Communities included in the expenditure sample in the Study of Consumer Purchases

- Metropolises (2):
  - Chicago, Ill.
  - New York, N. Y.[1]
- Large cities (6):
  - Providence, R. I.
  - Columbus, Ohio
  - Atlanta, Ga.
  - Omaha-Council Bluffs, Nebr.-Iowa.[2]
  - Denver, Colo.
  - Portland, Oreg.
- Middle-sized cities (14):
  - Haverhill, Mass.
  - New Britain, Conn.
  - New Castle, Pa.
  - Muncie, Ind.
  - Springfield, Ill.
  - Dubuque, Iowa.[2]
  - Springfield, Mo.[2]
  - Columbia, S. C.
  - Mobile, Ala.
  - Butte, Mont.
  - Pueblo, Colo.
  - Aberdeen-Hoquiam, Wash.
  - Bellingham, Wash.
  - Everett, Wash.
- Small cities [3] (29):
  - Wallingford, Conn.
  - Willimantic, Conn.
  - Greenfield, Mass.
  - Westbrook, Maine.
  - Beaver Falls, Pa.
  - Connellsville, Pa.
  - Logansport, Ind.
  - Peru, Ind.
  - Mattoon, Ill.
  - Lincoln, Ill.
  - Beaver Dam, Wis.
  - Mt. Vernon, Ohio.
  - New Philadelphia, Ohio.
  - Columbia, Mo.
  - Moberly, Mo.
  - Boone, Iowa.
  - Albany, Ga.[2]
  - Griffin, Ga.[2]
  - Gastonia, N. C.[2]
  - Sumter, S. C.[2]
  - Dodge City, Kans.
  - Billings, Mont.
  - Greeley, Colo.

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[1] Expenditure data for Negroes only utilized in the present study.

[2] Not utilized in the present study.

[3] Data from small cities were not used in building up the national estimates of the major categories of disbursement. However, in estimating the proportion of taxes in the combined outlays for gifts and personal taxes, and the break-down of outlays for gifts into the major types of gifts, data from all but the four small cities in the South were utilized.

Communities included in the expenditure sample in the Study of Consumer Purchases—Continued

- Small cities—Continued.
    - Logan, Utah.
    - Provo, Utah.
    - Astoria, Oreg.
    - Eugene, Oreg.
    - Klamath Falls, Oreg.
    - Olympia, Wash.
- Villages (140):
    - New England (14):
        - Massachusetts: Avon, East Bridgewater, Hebronville, Kingston, North Easton, North Dighton, North Raynham, South Hanson-Bryantsville.
        - Vermont: Briston, Essex Junction, Northfield, Richford, Swanton, Waterbury.
    - North Central (46):
        - Illinois: Atlanta, Bement, Cerro Gordo, Farmer City, Maroa, Monticello, Mount Pulaski, Tuscola.
        - Iowa: Brooklyn, Bussey, Dallas, Earlham, Eddyville, Melcher, Montezuma, New Sharon, Pleasantville, State Center, Victor.
        - Michigan: Blissfield, Chelsea, Concord, Grass Lake, Hudson, Jonesville, Parma, Tecumseh.
        - Ohio: Bellville, Cardington, Fredericktown, Mount Gilead, Perrysville, Plymouth.
        - Pennsylvania: Denver, Marietta, New Freedom, New Holland, Quarryville, Spring Grove, Wrightsville.
        - Wisconsin: Horicon, Lake Mills, Mayville, Mount Horeb, Sun Prairie, Waterloo.
    - South (34):
        - Georgia: Comer, Commerce, Greensboro, Jefferson, Madison, Social Circle, Washington, Winder.
        - Mississippi: Drew, Hollandale, Indianola, Itta Bena, Leland, Moorhead, Mound Bayou, Rosedale, Ruleville, Shaw, Shelby.
        - North Carolina: Elm City, Franklinton, Louisburg, Nashville, Spring Hope, Wake Forest, Whitakers, Zebulon.
        - South Carolina: Bishopville, Camden, Lake City, Lamar, Manning, Summerton, Timmonsville.
    - Mountain and Plains (22):
        - Colorado: Glenwood Springs, Meeker, Red Cliff, Rifle.
        - Kansas: Bucklin, Cimarron, Fowler, Kinsley, Meade, Spearville.
        - Montana: Forsyth.
        - North Dakota: Casselton, Cooperstown, Finley, Hatton, Hillsboro, Hope, Lidgerwood, Mayville, Portland.
        - South Dakota: Belle Fourche, Sturgis.
    - Pacific (24):
        - California: Beaumont, Brea, Ceres, Elsinore, Hemet, La Habra, Manteca, Newman, Oakdale, Placentia, San Jacinto, Tustin.
        - Oregon: McMinnville, Newberg, Sheridan, Silverton, Woodburn.
        - Washington: Arlington, Blaine, Burlington, Lynden, Marysville, Monroe, Snohomish.
- Farm counties (66):
    - New England (4):
        - Massachusetts:[2] Bristol, Plymouth (dairy and poultry).
        - Vermont: Chittenden, Franklin (dairy).

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[2] Not utilized in the present study.

Communities included in the expenditure sample in the Study of Consumer Purchases—Continued

- Farm counties—Continued.
    - North Central (18).
        - Illinois: De Witt, Logan, Macon, Piatt (corn or cash grain).
        - Iowa: Madison, Mahaska, Marion, Marshall, Poweshiek (animal specialty).
        - Michigan: Lenawee (dairy and general).
        - New Jersey: [2] Camden, Gloucester, Salem (truck).
        - Ohio: Crawford, Knox, Richland (general).
        - Pennsylvania: Lancaster (general).
        - Wisconsin: Dane (dairy).
    - South (22).
        - Georgia: Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Wilkes (cotton).
        - Mississippi: Bolivar, Leflore, Sunflower, Washington (cotton).
        - North Carolina: [2] Jackson, Macon (self-sufficing).
        - North Carolina: Edgecombe, Nash (cotton and tobacco).
        - South Carolina: Clarendon, Darlington, Florence, Lee, Marion, Sumter (cotton and tobacco).
    - Mountain and Plains (13):
        - Colorado: Eagle, Garfield, Rio Blanco (range livestock).
        - Kansas: Edwards, Ford, Gray, Meade (wheat or cash grain).
        - Montana: Custer (range livestock and cash grain).
        - North Dakota: Barnes, Cass, Griggs, Steele (wheat or cash grain).
        - South Dakota: Pennington (range livestock and cash grain).
    - Pacific (9):
        - California: Orange, Riverside (fruit).
        - California: San Joaquin (fruit and dairy).
        - Oregon: [2] Clackamas, Marion, Multnomah, Polk, Washington (part-time).
        - Oregon: Marion, Polk (general and fruit).
        - Washington: Whatcom (poultry and dairy).

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[2] Not utilized in the present study.

The Income Sample

The income sample was limited in most communities to native-white families that had contained both husband and wife throughout the schedule year and that maintained housekeeping quarters at the time of the interview. For farm families there were the additional requirements that the home meet the census definition of a farm, and that the family had operated the farm throughout the preceding year. Native Negro normal families were included in the regular sample in all rural and urban communities surveyed in the southeast area and in New York City and Columbus, Ohio.

Thus the income sample was a selected random sample comprised of all families in the broad random sample that met certain fixed qualifications admitting them to the "universe" selected for study.[5] From all such

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[5] Single individuals were included in the income sample in three of the six large cities—Providence, R. I., Columbus, Ohio, and Portland, Oreg., and in one of the two metropolises—Chicago, Ill.

"eligible" families, detailed data on income, family composition, occupation, and housing were obtained by means of a short sampling schedule called the *family schedule*. The information obtained from each family covered the 12-month period immediately preceding the interview or—in the case of some families interviewed in the spring months—the calendar year 1935.

In certain communities family schedule data were also obtained from a relatively small random sample of the families that were ineligible for the regular income sample, including families in which either husband or wife was foreign-born, Negro families in communities where they were not included in the regular sample, and families not containing both husband and wife. This sample of "ineligibles" supplied information on the relative income status of these less numerous groups in the population and made it possible to obtain an over-all picture of income, occupation, and family-type distributions in the sample communities covered.[6]

The Consumption Sample

The information on family expenditures and savings was obtained from a third sample of families selected from the regular income sample.[7] In order to eliminate families of the numerically less important types which would blur comparisons between the major groups of families, certain requirements were set up for eligibility in the consumption sample in addition to those already mentioned for eligibility in the regular income sample.

Types of Families Selected.—Foremost among these added eligibility requirements was the requirement that a family must not have received relief at any time during the schedule year. In addition, stricter requirements as to living arrangements had to be met than was true for the income sample. A family must have been living in housekeeping quarters for at least 9 months during the schedule year, and must not have moved between the end of the schedule year and the date of the interview. For at least 9 months of the schedule year, a nonfarm family must have lived in the community in which it was living at the time of the interview.[8] Furthermore, a family must not have had more than the equivalent of one roomer and/or boarder for 52 weeks of the schedule year, nor more than the equivalent of one guest for 26 weeks of the schedule year.

Farm families operating part-time farms were excluded from the consumption sample, except in Oregon, where a special study was made of families engaged in part-time farming. City and village families, on the other hand, must have had earnings from some occupation, and the chief source of earnings must not have been from farming.

A more limited number of family composition groups were eligible for the consumption than for the income sample. In most communities, families of seven or more, and families of five or six with all members except husband and wife under 16 or all 16 or over were excluded. In certain communities, the only types excluded from the consumption sample were families of nine or more, and families of five or more persons, all of whom were 16 years or over.[9]

Control of Number of Cases.—The consumption sample was further controlled in most urban communities to limit the number of cases obtained from the various groups of families at each income level. Eligible families within each collection unit (a large city, the middle-sized, the small cities, the villages, or the farm counties in a given region), were classified into "cells" according to the three factors of occupation, family-type, and income, and the number of cases in each "cell" was limited. This limitation of the number of families to be interviewed for each "cell" prevented the piling up of a needlessly large number of cases from the modal occupation, family-type, and income groups, and yet provided enough cases from the less usual groups to yield reliable averages. In rural communities and in some small cities, however, the family and the expenditure schedules were usually taken at the same time, as an economy measure, with the result that the control over the number of expenditure schedules in the various "cells" was not strictly enforced.

The "Stratified" Sample.—In addition to the regular consumption sample described above, a so-called stratified sample was obtained in some communities where 100-percent coverage was not achieved in the random sample and additional schedules were needed for certain family groups. The primary purpose of this sample was to obtain additional expenditure schedules from high income families; the selection of these families was accomplished by canvassing the well-to-do districts of the community, selecting names from business and professional directories, etc. The expenditure schedules so obtained were used in some cases as a reservoir to substitute for schedules which were only partially completed because of the family's refusal to give the necessary data. In other cases, schedules from the stratified sample were merely added to those from the regular consumption sample.

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[6] No expenditure data were obtained from this special sample of families "ineligible" for the regular income sample. For list of communities covered by this special income sample, see *Consumer Incomes in the United States*, p. 47, footnote 7.

[7] Expenditure data were also collected from special samples of single individuals interviewed in the regular income samples in Chicago, Ill., and Portland, Oreg. For discussion, see section 4 of this appendix, p. 143.

[8] As noted above, farm families must have operated the farm for the whole preceding year to be eligible for inclusion in the income sample, as well as in the consumption sample. See p. 105.

[9] This was true for white families in all communities in the North Central region, except New York City; for both white and Negro families in all village and farm communities in the South, and for Negro families in Atlanta, Ga

While the consumption sample was by no means a random sample with respect to the fundamental controls of income, family type and occupation, great care was taken to insure that the sample of families interviewed for each income-family composition-occupation "cell" would be representative of all families belonging to that "cell."

Check Lists and Food Records.—The expenditure schedule was supplemented, for those families willing and able to give more detailed information, by check lists on specific items of clothing, furnishings, and equipment purchased during the schedule year, and by a check list on food expenditure for a 7-day period. Weekly records of food consumption kept by the housewife were collected from a still more limited sample of families, for use in studying the adequacy of family diets. In all, more than 600 different items of expenditure and savings were covered in the expenditure schedule and the supplementary check lists.

The Schedules Used

Data from the expenditure schedules, together with the frequencies from the income sample (which were used as weights in certain cases) comprise the material from the Study of Consumer Purchases directly utilized in the present report. Reprinted below in facsimile are the expenditure schedules used for urban families by the Bureau of Labor Statistics and for farm families by the Bureau of Home Economics. The schedule for village and small-city families used by the latter bureau was similar to the urban schedule in questions on housing, and in all other respects was identical with the farm schedule.

The urban and farm expenditure schedules, it will be observed, are somewhat different in arrangement, and at some points call for somewhat different items of information. Part of these differences in items covered—as in the case of items on housing—merely reflect inherent differences between urban and farm living, and none of the differences affect the direct comparability of the expenditure data utilized from the schedules in the present report.

Approximately 200 different items of expenditure and savings were recorded on the expenditure schedule. These items have been grouped in this report into 16 major categories of disbursement—14 categories of expenditure for consumption goods and services, outlays for gifts and personal taxes, and savings. For three of these major groupings of items, subcategories are also presented—namely, food (purchased and home-produced), housing (money expenditure and imputed value), and gifts and personal taxes (personal taxes, gifts to individuals, contributions to church, and other gifts).

In addition to the detailed data on expenditures and changes in family assets and liabilities, the expenditure schedules provided for certain types of information not used in the present study, such as those relating to housing facilities, to the rural-urban background of urban families and to the amount of food canned by rural families.

Facsimiles of the record cards and the family schedules used for urban and for farm families are to be found in the report, *Consumer Incomes in the United States,* pages 49 to 51. As indicated above, data from the family schedules formed the main basis of the estimates of income distribution presented in that report, which were utilized in the present study for weighting the average patterns of family expenditure.

Number of Families in the Three Samples

The broad random sample of families interviewed in the record card sample totalled approximately 700,000 families. Family schedules, containing income data, were obtained from about 300,000 of these families. Expenditure schedules, forming a definitely controlled sample, totalled about 60,000. Of these about 42,000 were used in preparing the family expenditure patterns in the present report,[10] with about 8,500 additional schedules used in estimating outlays for direct personal taxes and for different types of gifts.

Although the expenditure schedules used represent a very small fraction of the 29 million families in the United States, the percent of coverage is relatively unimportant in gauging the error to which the estimates are subject. The size of the possible error depends rather on the absolute number of cases on which the estimates are based and upon their representativeness of the important types of families in the population. It depends to only a negligible extent on the "percent coverage" if representativeness is really achieved.

Representativeness has been achieved in this sample to an extent far greater than in any previous study of the consumption habits of the American people. For certain groups of families, to be sure, the sample is smaller than could be desired, and for some groups—notably the foreign-born and the very high income groups—no data whatever are available. Nevertheless, the study provides for the first time in American statistical history a comparable body of data on the expenditures of most of the important groups of the population—data collected, edited, and tabulated by uniform methods, following uniform definitions and classifications, and covering a single period of time.

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[10] In addition, 445 of the 865 expenditure schedules for single individuals available for use in this report were from the Study of Consumer Purchases. For a distribution by income level of the family and individual schedules used, see table 1B, p. 122. For description of the expenditure data from various sources used in preparing the patterns for single individuals, see pp. 142-145.

Methods Used to Assure Reliability of the Data

In a study of the type, and especially one of the magnitude, of the Study of Consumer Purchases, some question inevitably arises as to the reliability of the data collected. A brief indication of the methods used to assure the accuracy of the schedules and the representativeness of the expenditure sample within each "cell" may therefore be desirable. For a fuller description of these precautions, the reader is referred to reports prepared by the two bureaus administering the study.

The first prerequisite for reliability in the results of such a study was, of course, careful advance planning of the collection and analysis of the data, with careful preparation of instructions for supervisors, field agents, editors, and tabulators. This requirement was clearly recognized by the Government agencies sponsoring the project, and arrangements were made on the initiation of the study to provide for adequate preparation. The various smaller studies of consumer expenditures previously made by the bureaus conducting the project and by other research agencies supplied a background of experience indispensable for this large-scale undertaking.

A second prerequisite was obviously the careful selection and training of personnel. Here again every effort was made to meet the needs of the project. The supervisory staffs in the regional administrative offices and in the local collection offices consisted of college graduates with training in the social sciences and statistics, and in many cases with experience in the direction of surveys. The field agents and editors were selected from persons of clerical and professional rating on Works Progress Administration rolls by means of aptitude tests. All of the workers appointed on the project were given a training period of 2 or 3 weeks, with practice in carrying through the duties to which they were assigned. Thus every field agent and editor started work with a knowledge of the requirements for correct, consistent reports.

As a further assurance of the accuracy of the data collected, a system of check interviewing was adopted, under the guidance of the regional office staffs. In general, 1 out of every 8 to 10 families visited by each agent was revisited by a supervisor, editor, or squad leader, to check enough of the entries on the schedule to prove that the agent had obtained the information from the family and had reported it correctly. The schedules to be checked were chosen at random. Similarly, spot editing of schedules was carried out by the regional supervisors.

A further check upon the accuracy of the information given by the family on the expenditure schedules was obtained by comparing the total money receipts previously reported on the family schedule with the total money disbursements derived from data given in the expenditure schedule. If the difference between the two amounts exceeded 5.49 percent of the larger figure for the city and village families, or 10.49 percent for farm families, the expenditure schedule was rejected.[11]

In addition to the need for accurate collecting and editing of schedules, there was need for assuring that the sample of families from whom the schedules were obtained in each community was properly selected. The first problem here was the selection of a truly random sample of dwelling units for the record card sample, and the second, the avoidance of bias in the record card and income samples owing to the refusal or inability of some families to give the desired information or because of unsuccessful attempts to contact families. The various preventive and corrective measures adopted to meet these difficulties are briefly indicated in the preceding report.[12]

The selection of the consumption sample presented a third type of sampling problem—that of assuring the randomness of the sample selected within each "cell." The representativeness of the cases within a given "cell" was primarily dependent, of course, upon the randomness of the income sample for that cell, from which the consumption sample was drawn. But it was dependent also upon the avoidance of any bias in choosing the particular families in the cell from whom expenditure schedules were obtained. For example, it was necessary to make a special effort to avoid an undue proportion of schedules from the more thrifty or more methodical families—those who could more readily give a complete and acceptable schedule. To guard against this bias, a revisiting or "recapture" program was instituted to clear up missing or doubtful items on the schedules. The most skillful field agents were assigned to this work, so that the number of incomplete or discarded schedules was reduced to a minimum.[13]

As indicated above, these sampling procedures did not insure the collection of an adequate number of schedules from the higher income groups. Aside from this limitation, however, the methods used in the study appear to justify confidence in the reliability of the results and the representativeness of the sample. This confidence is further justified by the internal consistency revealed in the expenditure data for similar types of families in the various communities covered by the study.

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[11] This "balancing difference" was defined as the amount of discrepancy between money receipts (income plus decrease in assets or increase in liabilities) and disbursements (expenditure plus increase in assets or decrease in liabilities) as reported by the family on the income and expenditure schedules. The difference was considered positive when estimated receipts exceeded estimated disbursements, and negative when the reverse was found. In balancing farm schedules the figure for money receipts was adjusted for the value of farm inventory change, since that value was included as an increase or decrease in family assets.

[12] See *Consumer Incomes in the United States*, p. 52.

[13] See "Methods and Problems of Sampling Presented by the Urban Study of Consumer Purchases," by Schoenberg, Erika H., and Parten, Mildred, the *Journal of the American Statistical Association* Vol. 32, June 1937, pp. 321-322.

URBAN EXPENDITURE SCHEDULE

Page 1

B. L. S. 938

CONFIDENTIAL

The information requested in this schedule is strictly confidential. Giving it is voluntary. It will not be seen by any except sworn agents of the cooperating agencies and will not be available for taxation purposes.

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
IN COOPERATION WITH
NATIONAL RESOURCES COMMITTEE
WORKS PROGRESS ADMINISTRATION
DEPARTMENT OF AGRICULTURE
WASHINGTON

STUDY OF CONSUMER PURCHASES

A Federal Works Project

EXPENDITURE SCHEDULE—URBAN

Code No. ______

Schedule No. ______

City ______

C. T. or E. D. ______

Agent ______

Date of interview ______, 1936

I. YEAR COVERED BY SCHEDULE

12 months beginning ______, 1935

and ending ______, 193

II. COMPOSITION OF ECONOMIC FAMILY

A	B	C	D	E
MEMBERS OF FAMILY	Sex	Age	Number of weeks—	
			At home	Away
1. Husband	M			
2. Wife	F			
3.				
4.				
5.				
6.				
7.				
8.				

III. RESIDENCE

In city during schedule year ______ months

IV. LIVING QUARTERS OCCUPIED
(at end of schedule year)

1. Type of living quarters ______
2. Total number of *rooms* (excluding bathrooms) ______
3. Total number of *persons* occupying these rooms (including family, roomers, paid help, and others) ______

4. If family is now renting, does rent include:

	Yes	*No*			*Yes*	*No*	
a.	☐	☐	Garage.	*e.*	☐	☐	Light.
b.	☐	☐	Furnishings.	*f.*	☐	☐	Refrigerator (mechanical).
c.	☐	☐	Heat.				
d.	☐	☐	Water.	*g.*	☐	☐	Refrigeration.

HOUSING FACILITIES

5. Water supply:
   - *a.* ☐ In living quarters.
   - *b.* ☐ Indoors, other.
   - *c.* ☐ Outdoors.
6. Running water:
   - *a.* ☐ Hot or cold.
   - *b.* ☐ Cold only.
   - *c.* ☐ None.
7. Location of toilets:
   - *a.* ☐ In living quarters.
   - *b.* ☐ Indoors, other.
   - *c.* ☐ Outdoors.
8. Number of toilets:
   - *a.* Flush ______
   - *b.* Other ______
9. Heating (check principal method):
   - *a.* ☐ Central, steam or water.
   - *b.* ☐ Central, air.
   - *c.* ☐ Stoves (not kitchen).
   - *d.* ☐ Kitchen stove only.
   - *e.* ☐ Fireplace.
   - *f.* ☐ None.
10. Lighting:
   - *a.* ☐ Electricity.
   - *b.* ☐ Gas.
   - *c.* ☐ Kerosene.
   - *d.* ☐ Other.
11. Cooking fuel:
   - *a.* ☐ Gas.
   - *b.* ☐ Electricity.
   - *c.* ☐ Wood or coal.
   - *d.* ☐ Kerosene or gasoline.
   - *e.* ☐ Other.

V. HOUSING EXPENSE (during schedule year)

A	B	C
RENTED HOME (excluding vacation home)	Present home	Other home
1. Number of months occupied		
2. Monthly rental rate	$	$
3. Rental concessions		
4. TOTAL rent		
5. Repairs paid for by family		
6. TOTAL expense (4+5)		
OWNED HOME (excluding vacation home)	Present home	Other home
Number of months:		
7. Owned		
8. Occupied as owner		
9. Structural additions to home during year	$	$
10. Paid on principal of mortgage during year		
EXPENSE FOR MONTHS OWNED		
11. Interest on mortgage	$	$
12. Refinancing charges		
13. Taxes payable in schedule year, except back taxes		
14. Special assessments		
15. Repairs and replacements		
16. Insurance, fire, tornado		
17. Other		
18. TOTAL for months owned (11–17)		
19. TOTAL for months occupied as owner		
20. TOTAL for family's home (6+19)		

VACATION HOME	Expense for year
21. Vacation home owned: Net expense for months occupied	$
22. Vacation home rented: Rent and repairs for months occupied	
23. Lodging while traveling or on vacation	
24. TOTAL 21–23	
MONEY VALUE OF HOUSING RECEIVED (without direct money payment)	Value
25. Rental value of housing received as gift or pay	
26. Net money value of occupancy of family's owned home	
27. Net money value of occupancy of owned vacation home	

14—3290

URBAN EXPENDITURE SCHEDULE

Page 2

VI. HOUSEHOLD OPERATION

A	B	C										
FUEL, LIGHT, and REFRIGERATION	Unit	Price	Latest season		Earlier Seasons							Total expense for year (for office use)
			Months		Months		Months		Months		Months	
			Quantity	Expense	Quantity	Expense	Quantity	Expense	Quantity	Expense	Quantity	Expense	
1. Coal: Bit. ☐ Anth. ☐				$		$		$		$		$	$
2. Coke ☐ Briqts. ☐													
3. Fuel oil													
4. Wood ☐ Kindling ☐													
5. Kerosene ☐ Gasoline ☐													
6. Electricity			x x x		x x x		x x x		x x x		x x x		
7. Gas			x x x		x x x		x x x		x x x		x x x		
8. Ice													
9. TOTAL (1–8)			x x x		x x x		x x x		x x x		x x x		

10. Value of fuel gathered by family or received free, $

A	B	C	D	E	F	G	H	J
PAID HOUSEHOLD HELP	Wks.	Lives		Employed		Expense per week		Expense for year
		In	Out	F. T.	P. T.	No. meals	Dollars	
11. Cook or general worker								$
12. Cleaning man or woman								
13. Laundress								
14.								
15.								
16. Aprons, uniforms, and gifts to paid help								
17. TOTAL (11–16)								

A	B
OTHER HOUSEHOLD EXPENSE	Expense for year
18. Water rent	$
19. Telephone: Number mos. ; per mo. $	
20. Laundry sent out: Number wks. ; amt. $	
21. Specify service	
22. Laundry soap and other cleaning supplies	
23. Stationery, postage, telegrams	
24. Moving, express, freight, etc	
25. Other	
26. TOTAL (18–25)	
27. TOTAL household operation (9+17+26)	

VII. MEDICAL CARE

A	B	C
	Check if any free	Expense for year
1. Physician: office visits at $		$
2. Physician: home calls at $		
3. Dentist		
4. Oculist		
5. Other specialist (specify)		
6. Clinic visits: Number at $		
7. Hospital room or bed: days at $		
8. Private nurse: In hosp. days at $		
9. Private nurse: At home days at $		
10. Visiting nurse: visits at $		
11. Examinations and tests (not included above)		
12. Medicines and drugs		
13. Eye glasses		
14. Medical appliances and supplies		
15. Health and accident insurance		
16. Other		
17. TOTAL (1–16)		

VIII. RURAL—URBAN BACKGROUND

A	B	C	D	E
Lived—	Husband		Wife	
	No. years	State	No. years	State
1. On a farm or in open country				
2. In village of less than 2,500				
3. In city of 2,500 to 10,000				
4. In city of 10,000 or more				

14—3290

URBAN EXPENDITURE SCHEDULE

Page 3

IX. RECREATION

A	B	C	D	E	F
	Adults		Children		Expense for year
	Number	Price	Number	Price	
Paid admissions to—					
1. Movies: Winter		$		$	$
2. Spring					
3. Summer					
4. Fall					
5. Plays, pageants, concerts, lectures, forums					
6. Ball games, other spectator sports					
7. Dances, circuses, fairs					

GAMES AND SPORTS

8. Equipment, supplies, fees, licenses (enter year's expense for each item):

Hunting, $____; Fishing, $____;

Camping, $____; Trapping (sport), $____;

Hiking, $____; Riding, $____;

Baseball, $____; Tennis, $____; Golf, $____;

Bicycles, $____; Skates, sleds, skis, $____;

Billiards and bowling, $____; Boats, $____;

Cards, chess, other games, $____; Other, $____

9. Total (all items 8)	

OTHER RECREATION

10. Radio: Purchase	
11. Batteries, tubes, repairs,	
12. Musical instruments (specify)	
13. Sheet music, phonograph records	
14. Cameras, films, photo supplies	
15. Children's toys, play equipment	
16. Pets (purchase and care)	
17. Entertaining in and out of home	
18. Dues to social and recreational clubs	
19. Other (specify)	
20. TOTAL (1–19)	

X. TOBACCO

	Expense for year
1. Cigarettes: Packages per week ____ @ ____ ¢ ____	
2. Cigars: Number per week ____ @ ____ ¢ ____	
3. Tobacco: All other	
4. Smokers' supplies	
5. TOTAL (1–4)	

XI. READING

	Expense for year
1. Newspapers: Daily	$
2. Weekly	
3. Magazines (subscriptions and single copies)	
4. Books (not school books) bought during year: Number	
5. Book rentals and library fees, public and rental libraries	
6. Books borrowed from public and rental libraries: Number	x x x x
7. TOTAL (1–6)	

XII. EDUCATION

A	B	C	D	E
School attended during schedule year	Members attending		Expense for year	
	Public	Private	Tuition and fees	Books and supplies
1. Nursery school, kindergarten			$	$
2. Elementary school				
3. High or preparatory school				
4. Business or technical school				
5. College, graduate, or professional school				

A	B	C
	Expense for year	Previous education
6. Total, tuition (1–5D)	$	Highest grade completed by: 13. Husband ____
7. Total, books and supplies (1–5E)		
8. Special lessons		14. Wife ____
9. Other (excluding board and rent)		15. Son or daughter over 16 years with most schooling:
10. TOTAL (6–9)		*a.* Sex ____
11. Board at school or college		*b.* Age ____
12. Room rent at school or college		*c.* Member of economic family? Yes ☐ No ☐

XIII. OCCUPATIONAL EXPENSE

(not reported as business expense or as deduction from gross income)

	Expense for year
1. Union dues, fees	$
2. Business and professional association dues	
3. Technical books and journals	
4. Supplies and equipment	
5. Other	
6. TOTAL (1–5)	

XIV. PREVIOUS OCCUPATION OF HUSBAND

1. Was husband's occupation same during schedule year as in 1929? Yes ☐ No ☐

2. If not, his occupation in 1929 was ____

XV. GIFTS, COMMUNITY WELFARE, AND TAXES

	Expense for year
1. Gifts (Christmas, birthday, other) to persons not members of economic family (not charity)	$
2. Contributions to support relatives not members of economic family	
3. Donations to other individuals	
4. Community chest and other welfare agencies	
5. Church, Sunday school, missions	
6. Taxes: Poll, income, personal property (payable in schedule year, except back taxes)	
7. Other	
8. TOTAL (1–7)	

URBAN EXPENDITURE SCHEDULE

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XVI. USUAL FOOD EXPENSE DURING EACH SEASON OF SCHEDULE YEAR

A										
FOOD AT HOME	Latest season of year		Earlier seasons							
	Months		Months		Months		Months		Months	
	Per week	Per month	Per week	Per month	Per week	Per month	Per week	Per month	Per week	Per month
Food expense at— 1. Grocery or general store (excluding soap, matches, etc.)	$	$	$	$	$	$	$	$	$	$
2. Meat and fish market										
3. Dairy										
4. Vegetable and fruit market or wagon										
5. Bakery										
Additional expense for food at home— 6. Ice cream, candy										
7. Soft drinks, beer, etc										
8. Other food at home										
9. TOTAL for week or month (1–8)										
10. TOTAL for season										
FOOD AWAY FROM HOME (Excluding meals while away at school, and meals carried from home)	Per week	Per month	Per week	Per month	Per week	Per month	Per week	Per month	Per week	Per month
Expense for— 11. Meals at work										
12. Lunches at school										
13. Meals while traveling or on vacation										
OTHER MEALS AWAY— 14. Breakfasts										
15. Lunches										
16. Dinners										
17. Ice cream, candy										
18. Soft drinks, beer, etc										
19. TOTAL for week or month										
20. TOTAL for season										

TOTAL FOOD EXPENSE DURING SCHEDULE YEAR		FOOD RAISED AT HOME OR RECEIVED AS GIFT OR PAY DURING SCHEDULE YEAR	
21. Food at home (item 10)	$	Money value of food— 24. Raised for family's own use	$
22. Food away from home (item 20)		25. Received as gift or pay	
23. TOTAL		26. TOTAL	

URBAN EXPENDITURE SCHEDULE
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XVII. AUTOMOBILES
(owned at any time during year)

1. How many months during year did you own:
a 1 automobile, ______ mos.; *b* 2 automobiles, ______ mos.;
c 3 automobiles, ______ mos.; no automobiles, ______ mos.

AUTOMOBILES OWNED AT END OF SCHEDULE YEAR

A	B	C	D	E
Year bought	New	Used	Make	Price
2. 19______				$______
3. 19______				
4. 19______				
5. Gross price of car bought during year $______				x x x x
6. Trade-in allowance for used car, $______				x x x x
7. Net price of car bought (5 minus 6)				

8. Month purchased ______ Terms: Cash ☐ Installment ☐
9. Total number of miles driven during year (all owned cars) ______ miles.
10. Average miles per gallon of gasoline, ______ miles.

GASOLINE

A	B	C
Season	Number of gallons	Expense
11. Latest		$______
12.		
13.		
14.		
15.		
16. Total for year (11–15)		

A	B
	Expense for year
17. Oil: Number of quarts	$______
18. Tires, tubes: Purchase	
19. Repairs, replacements, service	
20. Garage rent, parking	
21. Licenses, including registration fee	
22. Fines, damages paid to others	
23. Automobile insurance (all types)	
24. Tolls (bridge, ferry, tunnel)	
25. Accessories (including automobile radio)	
26. Other (including association dues)	
27. Total (7, 16, and 17–26)	
28. Proportion of automobile expense chargeable to business	x x x x

XVIII. CLOTHING EXPENSE

(Make no entry if check list is used)	Expense for year
1. Wife	$______
2. Husband	
3.	
4.	
5.	
6.	
7.	
8.	
9. Total	

XIX. OTHER TRAVEL AND TRANSPORTATION

LOCAL—TO WORK, SCHOOL, STORES, ETC.	Expense for year
1. Bus, trolley, taxi, train, ferry boat, rent of automobile	$______
OTHER TRAVEL (Excluding business travel)	
2. Railroad (including Pullman)	
3. Interurban bus	
4. Other (specify vehicle)	
PURCHASE AND UPKEEP DURING YEAR	
5. Of motorcycle	
6. Of boat, airplane, other vehicle	
7. Total (1–6)	
8. Proportion of motorcycle ☐ or other vehicle ☐ expense chargeable to business	x x x x

XX. PERSONAL CARE

A	B
SERVICES	Expense for year
1. Wife: Haircut (usual price, ______), shampoo, waves, manicures, facials, other	$______
2. Husband: Haircut (usual price, ______), shaves, shampoos, other	
3. Children under 16: Haircuts (usual price, ______), other	
4. Other members of family: Haircut (usual price, ______), other	
TOILET ARTICLES AND PREPARATIONS	
5. Toilet soaps: ______ cakes at	
6. Tooth paste and powder, mouth wash, etc	
7. Shaving soap and cream	
8. Cold cream, powder, rouge, nail polish, perfume	
9. Brushes, etc., combs, razors, files	
10. Other toilet articles and preparations	
11. Total (1–10)	

XXI. EQUIPMENT OWNED BY FAMILY

A	B	C	D	E
KIND OF EQUIPMENT	Owned at end of schedule year		If purchased in schedule year	
	Yes	No	Price	Season purchased
1. Piano			x x x x	
2. Phonograph			x x x x	
3. Radio			x x x x	
4. Refrigerator, electric			$______	
5. Other mechanical refrigerator				
6. Ice box				
7. Pressure cooker				
8. Washing machine, power				
9. Washing machine, other				
10. Ironing machine				
11. Vacuum cleaner				
12. Sewing machine, electric				
13. Other sewing machine				

XXII. FURNISHINGS AND EQUIPMENT

(Make no entry if check list is used)

Purchased in schedule year not included in items 4–13, section XXI. Total expense for year, $______

URBAN EXPENDITURE SCHEDULE
Page 6

XXIII. OTHER FAMILY EXPENSE

	Expense for year		Expense for year
1. Interest on debts incurred for family living other than mortgage on owned home	$	5. Loss, other than business loss	$
2. Did family have checking account at any time during schedule year? Yes☐ No ☐		6. Funeral, cemetery	
3. Bank service charges, safe deposit box		7. Other	
4. Legal expense (not business)		8. Total (1–7)	

XXIV. CHANGES IN FAMILY ASSETS AND LIABILITIES DURING SCHEDULE YEAR ____ 1935 to ____ 193__
(Excluding changes due to increases or decreases in the value of property which has not changed hands)

CHANGES IN PROPERTY OWNED BY FAMILY AND AMOUNTS DUE FAMILY

A	B	C
Money, stocks, real estate, other assets	Changes in assets during schedule year Net amount of increase	 Net amount of decrease
1. Money in savings accounts	$	$
2. In checking accounts		
3. On hand		
4. Investments in business		
5. Real estate: Purchased		x x x x x x x x
6. Sold	x x x x x x x x	
7. Stocks and bonds: Purchased		x x x x x x x x
8. Sold	x x x x x x x x	
9. Other property: Purchased		x x x x x x x x
10. Sold	x x x x x x x x	
11. Improvements on owned home		x x x x x x x x
12. Improvements on other real estate		x x x x x x x x
13. Insurance premiums paid (life, endowment, annuity)		x x x x x x x x
14. Frequency of payment		
15. Insurance policies surrendered	x x x x x x x x	
16. Insurance policies settled	x x x x x x x x	
17. Loans made by family to others during schedule year (balance not repaid)		x x x x x x x x
18. Repayments to family on loans made before schedule year	x x x x x x x x	
19. All other (specify)		
20. Total (1–19)		

CHANGES IN DEBTS OWED BY FAMILY

D	E	F
Liabilities	Changes in liabilities during schedule year Net amount of increase	 Net amount of decrease
21. Mortgages on owned home	$	$
22. Mortgages on other real estate		
23. Notes due to banks, insurance companies, small loan companies		
24. Notes due to individuals		
25. Back rents (due before schedule year)	x x x x x x x x	
26. Rents due in schedule year, unpaid		x x x x x x x x
27. Back taxes (due before schedule year)	x x x x x x x x	
28. Taxes due in schedule year, unpaid		x x x x x x x x
29. Charge accounts due		
30. Other bills due		
31. Payments on installment purchases made prior to schedule year (specify goods purchased):		
(*a*)	x x x x x x x x	
(*b*)	x x x x x x x x	
(*c*)	x x x x x x x x	
32. Balance due on installment purchases made in schedule year (specify goods purchased):		
(*a*)		x x x x x x x x
(*b*)		x x x x x x x x
(*c*)		x x x x x x x x
33. All other (specify)		
34. Total (21–33)		

FARM EXPENDITURE SCHEDULE

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B. H. E. Form 104

CONFIDENTIAL

The information requested in this schedule is strictly confidential. Giving it is voluntary. It will not be seen by any except sworn agents of the cooperating agencies and will not be available for taxation purposes.

YEAR COVERED BY SCHEDULE

12 months beginning ...., 1935

and ending ...., 193

U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF HOME ECONOMICS
IN COOPERATION WITH
NATIONAL RESOURCES COMMITTEE
WORKS PROGRESS ADMINISTRATION
DEPARTMENT OF LABOR
WASHINGTON

STUDY OF CONSUMER PURCHASES

A FEDERAL WORKS PROJECT

EXPENDITURE SCHEDULE—FARM

Code No. ....
Family Schedule No. ....
Expenditure Schedule No. ....
Inc. .... County ....
Clr. .... State ....
Agent .... M. C. D. ....
Date of interview ...., 1936

I. COMPOSITION OF ECONOMIC FAMILY

A	B	C	D	E
Members of family	Sex	Age	Number of weeks— At home	Number of weeks— Away
1. Husband	M			
2. Wife	F			
3.				
4.				
5.				
6.				
7.				
8.				

II. FAMILY DWELLING

1. Total number of rooms (exclude bathroom) ....
2. Total number of persons occupying these rooms (include family, paid help, roomers, others) ....

	A	B
	For kitchen	For bathtub or shower
3. Water supply, indoors:		
a. Running hot and cold		
b. Running cold only		
c. Hand pump, only		
d. None		

4. Kitchen sink with drain pipe:
   - *a.* ☐ Yes. *b.* ☐ No.
5. Toilet (check one):
   - *a.* ☐ Indoor, flush.
   - *b.* ☐ Indoor, other.
   - *c.* ☐ Outdoor (privy).
   - *d.* ☐ None.
6. Cooking fuel (check one):
   - *a.* ☐ Wood, coal, cobs.
   - *b.* ☐ Kerosene or gasoline.
   - *c.* ☐ Electricity.
   - *d.* ☐ Gas.
   - *e.* ☐ Both *a* and *b*.
   - *f.* ☐ Other combinations.
7. Heating, principal method (check one):
   - *a.* ☐ Central furnace.
   - *b.* ☐ Stoves other than kitchen. Number ....
   - *c.* ☐ Fireplace.
   - *d.* ☐ Kitchen stove only.
   - *e.* ☐ None.
8. Lighting (check one):
   - *a.* ☐ Kerosene.
   - Electricity:
     - *b.* ☐ Power line.
     - *c.* ☐ Home plant.
   - *d.* ☐ Other.

III. HOUSING EXPENSE DURING SCHEDULE YEAR

	Expense for year
1. Structural additions to home during year .... $................	x x x x
2. Repairs and replacements paid for by family	$
3. Insurance premiums on house (fire, tornado, other)	
4. Vacation home owned: Net expense	
5. Vacation home rented (rent and repairs)	
6. Lodging while traveling or on vacation	
7. Rent at school (transfer from IV, 12)	
8. Other	
9. TOTAL (2–8)	$
10. Money value of housing received without direct money payment	$

IV. EDUCATION

A	B	C	D	E
	Members attending (Give line number from 1A)		Expense for year	
School attended during schedule year	Public	Private	Tuition fees	Books and supplies
1. Kindergarten; nursery school			$	$
2. Elementary school				
3. High or prep. school				
4. Business or tech. school				
5. College, graduate, or professional school				

F	G
Item of expense	Expense for year
6. Total: Tuition (1–5D)	$
7. Total: Books and supplies (1–5E)	
8. Special lessons	
9 Other (exclude board and rent)	
10. TOTAL (6–9)	
11. Board at school	
12. Rent at school	

(Transfer board at school to food, VIII 20, rent to housing, III, 7)

H

Previous education

Highest grade completed by:

13. Husband ....
14. Wife ....
15. Son or daughter over 16 years with most schooling ....
    - *a.* Sex: ☐ M. ☐ F.
    - *b.* Age ....
    - *c.* Member of economic family: ☐ Yes. ☐ No.

FARM EXPENDITURE SCHEDULE

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V. HOUSEHOLD OPERATION

A	B	C	D
FUEL, LIGHT, REFRIGERATION	Quantity purchased in year	Price per unit	Expense for year
1. Coal purchased:			
Winter (DJF)____tons	x x x	$____	x x x
Fall (SON)____tons	x x x	____	x x x
Summer (JJA)____tons	x x x	____	x x x
Spring (MAM)____tons	x x x	____	x x x
Total	____tons	x x x	$____
2. Coke, briquettes	____	____	____
3. Wood and kindling	____	____	____
4. Kerosene for fuel and light	____gal.	____	____
5. Gasoline for fuel and light	____gal.	____	____
6. Fuel oil	____gal.	____	____

	AVERAGE EXPENSE PER MONTH				
	Winter Dec.–Feb.	Fall Sept.–Nov.	Summer June–Aug.	Spring March–May	
7. Electricity (purchased)	____	____	____	____	$____
8. Gas	____	____	____	____	____
9. Ice (purchased)	____	____	____	____	____
10. Total (1–9)	x x x	x x x	x x x	x x x	$____
11. Money value of fuel and ice obtained without direct money payment					$____

A	B	C	D	E
PAID HOUSEHOLD HELP	Persons customarily employed (number)	Meals usually furnished to each person (number daily)	Total time of service in year and wage rate	Expense for year
12. By hour	____	____	____hrs. @ $____	$____
13. By day	____	____	____days @ $____	____
14. By week	____	____	____wks. @ $____	____
15. By month	____	____	____mos. @ $____	____
16. Aprons furnished and other gifts to paid help				____
17. Total (12–16)				$____

18. Living quarters furnished to:	*Yes*	*No*
a. Help paid by hour	☐	☐
b. Help paid by day	☐	☐
c. Help paid by week	☐	☐
d. Help paid by month	☐	☐

OTHER HOUSEHOLD OPERATION	Expense for year
19. Telephone: Number mos. ____ Per mo., $____	$____
20. Laundry soap and other cleaning supplies	____
21. Laundry sent out: Number wks. ____ Per wk., $____	____
22. Stationery, postage, telegrams	____
23. Express, freight, drayage, moving	____
24. Water rent	____
25. Other	____
26. Total (18–25)	$____
27. Total for household operation (sum of 10, 17, and 26)	$____

VI. AUTOMOBILE

Owned at any time during schedule year

1. How many months during year did you own:

a. 1 auto____mos.; *b.* 2 autos ____mos.

c. 3 autos____mos.; *d.* No auto____mos.

AUTOMOBILE OWNED AT END OF SCHEDULE YEAR

A	B	C	D	E
YEAR BOUGHT	New (check)	Used (check)	Make	Price
2. 19____	____	____	____	$____
3. 19____	____	____	____	____
4. 19____	____	____	____	____

5. Gross price of car bought during year $____

6. Trade-in allowance on used car____ $____

7. Net price of car bought (5 minus 6)____ $____

8. Terms: *a.* ☐ cash; *b.* ☐ installments.

9. Month bought ____

10. Total miles driven during year (all cars owned)____miles.

11. Average miles per gallon of gasoline____miles.

GASOLINE FOR AUTO	Miles per quarter	Number gallons bought	Expense for quarter	Expense for year
12. Winter	____	____	$____	x x x
13. Fall	____	____	____	x x x
14. Summer	____	____	____	x x x
15. Spring	____	____	____	x x x
16. Total for year (12–15)				$____
17. Oil: Number of quarts				$____
18. Tires, tubes: Purchase				____
19. Repairs, replacements, service				____
20. Garage rent, parking				____
21. Licenses, including registration fees				____
22. Fines, damages paid others				____
23. Automobile insurance (all types)				____
24. Tolls (bridge, ferry, tunnel)				____
25. Accessories (include automobile radio)				____
26. Other (include association dues)				____
27. Total (7 plus 16 plus 17–26)				$____
28. Proportion of automobile expense chargeable to business				x x x

VII. OTHER TRAVEL AND TRANSPORTATION	Expense for year
Local—to work, school, stores:	
1. Bus, trolley, taxi, train, ferry, boat, rent of auto	$____
Other travel (exclude business travel):	
2. Railroad (include Pullman)	____
3. Interurban bus and trolley	____
4. Other (specify vehicle)	____
Purchase and upkeep during year:	
5. Of motorcycle	____
6. Of horse and carriage for family use	____
7. Of boat or other conveyance	____
8. Total (1–7)	$____
9. Proportion of motorcycle, horse and carriage, or other vehicle expense chargeable to business	x x x

FARM EXPENDITURE SCHEDULE

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VIII. FOOD

USUAL EXPENSE FOR FOOD AT HOME DURING EACH SEASON OF SCHEDULE YEAR

A	B		C		D		E	
ITEM	Winter 1935–36 Dec., Jan., Feb.		Fall 1935 Sept., Oct., Nov.		Summer 1935 June, July, Aug.		Spring 19____ March, Apr., May	
	Per week	Per month	Per week	Per month	Per week	Per month	Per week	Per month
EXPENSE AT—								
1. Grocery or general store (exclude soap and other supplies included as household operation)	$	$	$	$	$	$	$	$
2. Meat, fish: Market or farm								
3. Dairy farm or creamery								
4. Vegetable and fruit: Market or farm								
5. Bakery								
ADDITIONAL EXPENSE FOR FOOD AT HOME								
6. Ice cream, candy								
7. Soft drinks, beer, other drinks								
8. Other food at home								
9. TOTAL FOR WEEK OR MONTH								
10. TOTAL FOR SEASON	$		$		$		$	

FOOD AWAY FROM HOME
(Exclude board while away at school and meals carried from home)

A	B	C	D
ITEM	Amount per week	Number of weeks in year	Total for year
11. Meals at work	$		$
12. Lunches at school			
13. Meals while traveling or on vacation			
14. Other meals away from home			
15. Ice cream, candy			
16. Soft drinks, beer, etc			
17. TOTAL (11–16)	x x x	x x x	$

TOTAL FOOD EXPENSE DURING SCHEDULE YEAR

18. Food at home (add line 10)	$
19. Food away from home (line 17)	
20. Board at school (transfer from education)	
21. TOTAL (18–20)	$

MONEY VALUE OF FOOD RAISED AT HOME OR RECEIVED AS GIFT OR PAY DURING SCHEDULE YEAR

	Value for year
22. Food received as gift or pay	$
23. Food raised for family's own use	
24. TOTAL (22–23)	$

FOOD CANNED AT HOME DURING SCHEDULE YEAR

25. Vegetables	Quarts	
26. Sauerkraut	Gallons	
27. Fruit	Quarts	
28. Jellies, jams	Pints	
29. Pickles, relishes	Quarts	
30. Poultry, meats	Quarts	
31. Other	Quarts	

32. Of food canned at home, what proportion was home produced:

More than half	*Less than half*	
☐	☐	Vegetables.
☐	☐	Fruits.
☐	☐	Poultry, meats.

8—9578

FARM EXPENDITURE SCHEDULE
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IX. RECREATION

PAID ADMISSION TO—	Expense for year
1. Movies: Adults	$
2. Children	
3. Plays, pageants, lectures, concerts	
4. Ball games, other spectator sports	
5. Fairs, circuses, dances, other	
6. TOTAL (1–5)	$
GAMES AND SPORTS Equipment, supplies, fees, licenses (Enter year's expense for each item)	
7. Hunting ____ $____; fishing ____ $____; camping ____ $____; trapping (sport) ____ $____; hiking ____ $____; riding ____ $____; boating ____ $____; tennis ____ $____; golf ____ $____; baseball ____ $____; bicycles ____ $____; skates, sleds, skis ____ $____; billiards and bowling ____ $____; cards, chess, other games ____ $____; other ____ $____	
8. TOTAL (all items of 7)	$
OTHER RECREATION	
9. Radio: Purchase (exclude auto radio)	$
10. Batteries, tubes, repairs	
11. Musical instruments: Kind ____	
12. Sheet music, phonograph records	
13. Cameras, films, photo supplies	
14. Children's toys, play equipment	
15. Pets (purchase and care)	
16. Entertaining in and out of home (exclude family meals)	
17. Dues to social and recreational clubs	
18. Other (specify) ____	
19. TOTAL (9–18)	$
20. TOTAL recreation (6, 8, and 19)	$

X. READING

1. Newspapers: Daily	$
2. Weekly	
3. Magazines (subscriptions and single copies)	
4. Books (not school books) bought during year: Number ____	
5. Book rentals and library fees (public and rental libraries)	
6. Books borrowed from public and rental libraries: Number ____	x x x x x
7. TOTAL (1–5)	$

XI. TOBACCO

	Expense for year
1. Cigarettes: Packages per week, ____; price ____ cents	$
2. Cigars: Number per week, ____; price, ____ cents	
3. Tobacco: All other	
4. Smokers' supplies	
5. TOTAL (1–4)	$

XII. MEDICAL CARE

A Item	B Check if any free	C Expense for year
1. Physician: ____ office visits at $____		$
2. ____ home calls at $____		
3. Dentist		
4. Oculist		
5. Other specialist (specify) ____		
6. Clinic visits: ____ at $____		
7. Hospital room or bed: ____ days at $____		
8. Private nurse: At hospital, ____ days at $____		
9. At home, ____ days at $____		
10. Visiting nurse: ____ visits at $____		
11. Examinations and tests (not included above)		
12. Medicines and drugs		
13. Eyeglasses		
14. Medical appliances and supplies		
15. Premiums on health and accident insurance		
16. Other		
17. TOTAL (1–16)		$

XIII. PERSONAL CARE

SERVICES	Expense for year
1. Wife: Haircuts, shampoos, waves, manicures, facials, other	$
2. Husband: Haircuts, shaves, shampoos, other	
3. Children under 16 years of age: Haircuts, other services	
4. Other members of family: Haircuts, other services	
5. TOTAL (1–4)	$
TOILET ARTICLES AND PREPARATIONS	
6. Toilet soap: ____ cakes at ____ cents	$
7. Tooth paste, tooth powder, mouthwash	
8. Shaving soap and cream	
9. Cold cream, powder, rouge, perfume, nail polish	
10. Brushes, combs, razors, files, other toilet articles	
11. Other	
12. TOTAL (6–11)	$
13. TOTAL personal care (5 plus 12)	$

XIV. GIFTS, COMMUNITY WELFARE, TAXES

	Expense for year
1. Gifts (Christmas, birthday, other) to persons not members of economic family (noncharity)	$
2. Contributions to support of relatives not members of economic family	
3. Donations to other individuals	
4. Community chest and other welfare agencies	
5. Church, Sunday school, missions	
6. Taxes payable in schedule year: Poll, income (except back taxes)	
7. Other	
8. Total (1–7)	$

XV. EQUIPMENT OWNED BY FAMILY
(At end of schedule year)

A	B	C	D
Item	Owned at end of schedule year		Price if purchased in schedule year
	Yes	No	
1. Radio			x x x x
2. Piano			x x x x
3. Phonograph			x x x x
4. Pressure cooker			$
5. Refrigerator: Mechanical			
6. Ice			
7. Washing machine: Motor driven			
8. Other			
9. Ironing machine			
10. Vacuum cleaner			
11. Sewing machine: Electric			
12. Other			
13. Total (4–12)	x x	x x	$

XVI. FURNISHINGS AND EQUIPMENT (Purchased during schedule year and not included in 4 to 12 above)
(Do not fill out if check list is used)

	Expense for year
1. Kitchen, cleaning, laundry equipment	$
2. Glass, china, silver	
3. Household linens, blankets, curtains, other textiles	
4. Floor coverings	
5. Furniture	
6. Other	
7. Total (1–6)	$

XVII. CLOTHING EXPENSE (During schedule year)
(Do not fill out if check list is used)

A	B	C	D	E	F	G	H	I
	Member of economic family							
	Wife Age	Husband Age	Age	Age	Age	Age	Age	Age
1. Hats, caps, berets	$	$	$	$	$	$	$	$
2. Coats, raincoats, jackets, sweaters, furs								
3. Women's suits, dresses, skirts, blouses, aprons								
4. Men's suits, trousers, overalls, shirts								
5. Bathing suits, beach kimonos, riding habits, other special sportswear								
6. Underwear, nightwear, bathrobes, hose								
7. Footwear, including repairs								
8. Gloves, handkerchiefs, umbrellas, purses, ties, jewelry, other accessories								
9. Materials, paid help for sewing								
10. Cleaning and pressing								
11. Total (1–10)	$	$	$	$	$	$	$	$
12. Money value of clothing received as gifts								

FARM EXPENDITURE SCHEDULE
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XVIII. OTHER FAMILY EXPENSE
During schedule year

	Expense for year
1. Interest on debts incurred for family living (other than mortgages on own home)	$
2. Did family have checking account at any time during schedule year? *a.* ☐ Yes *b.* ☐ No.	
3. Bank service charges, safe deposit box	
4. Legal expense (not business)	
5. Losses other than business losses	
6. Funeral, cemetery	
7. Other	
8. Total (1–7)	$

XIX. OCCUPATIONAL EXPENSE
Not reported as business expense or as deductions from gross income

	Expense for year
1. Union dues	$
2. Professional or business association dues	
3. Technical books and journals	
4. Supplies and equipment (business)	
5. Other	
6. Total (1–5)	$

XX. PREVIOUS OCCUPATION OF HUSBAND

1. Was husband's occupation same during schedule year as in 1929? *a.* ☐ Yes *b.* ☐ No

2. If not, his occupation in 1929 was ____________

XXI. CHANGES IN FAMILY ASSETS AND LIABILITIES DURING SCHEDULE YEAR ________, 1935, TO ________, 193
(Exclude changes due to increases or decreases in the value of property which has not changed hands)

CHANGES IN PROPERTY OWNED BY FAMILY AND AMOUNTS DUE FAMILY

A	B	C
MONEY, STOCKS, REAL ESTATE, OTHER ASSETS	Changes in assets during schedule year	
	Net amount of increase	Net amount of decrease
1. Money in savings accounts	$	$
2. In checking accounts		
3. On hand		
4. Investments in business		
5. Real estate: Purchased		x x x
6. Sold	x x x	
7. Stocks and bonds: Purchased		x x x
8. Sold	x x x	
9. Other property: Purchased		x x x
10. Sold	x x x	
11. Improvements on owned home farm		x x x
12. Improvements on other real estate		x x x
13. Insurance premiums paid (life, endowment, annuity)		x x x
14. Frequency of payment: ____________	x x x	x x x
15. Insurance policies surrendered	x x x	
16. Insurance policies settled	x x x	
17. Loans made by family to others during schedule year (balance not repaid)		x x x
18. Repayments to family on loans made before schedule year	x x x	
19. Other (specify)		
20. Total (1–19)	$	$

CHANGES IN DEBTS OWED BY FAMILY

D	E	F
LIABILITIES	Changes in liabilities during schedule year	
	Net amount of increase	Net amount of decrease
21. Mortgages on owned home farm	$	$
22. Mortgages on other real estate		
23. Notes due to banks, insurance companies, small loan companies		
24. Notes due to individuals		
25. Back rents (due before schedule year)	x x x	
26. Rents due in schedule year, unpaid		x x x
27. Back taxes (due before schedule year)	x x x	
28. Taxes due in schedule year, unpaid		x x x
29. Charge accounts due		
30. Other bills due		
31. Payments on installment purchases made prior to schedule year (specify goods purchased):		
a.	x x x	
b.	x x x	
c.	x x x	
32. Balance due on installment purchases made in schedule year (specify goods purchased):		
a.		x x x
b.		x x x
c.		x x x
33. Other (specify)		
34. Total (21–33)	$	$

SECTION 3. SPENDING PATTERNS OF FAMILIES

The expenditure pattern of American families was derived, in broad outline, in two main steps. First, average patterns of spending were estimated by income level for various component groups of families on the basis of sample data on family expenditures and savings. Second, the sample patterns were weighted by the appropriate number of families in the population to derive the final set of spending patterns for all families in the Nation. In order to obtain these weights the 29,400,300 families in the Nation in 1935–36 were classified into groups in such a way that each group was fairly homogeneous with respect to its habits of spending.

Nature of the Problem

The extension of the sample expenditure data to cover all families in the population involved a series of problems. The first of these was to reduce the sample data to manageable proportions by combining the data for closely related groups. At the same time it was essential to retain enough of a breakdown to insure that the groups of families for which expenditure patterns were prepared were sufficiently homogeneous with respect to their patterns of spending. This problem is discussed below in "Deriving the Spending Patterns of Component Groups of Families."

The unsampled groups in the population introduced further problems. Certain of these groups—e. g., foreign-born families, broken families, and relief families—were assumed to have followed patterns of spending similar to those based on the sample data for closely related groups. A description of the procedures followed in extending the sample data to these groups is included in the subsection "Deriving the Spending Pattern of All Families." For other groups not represented in the sample data for all communities—i. e., for families of seven or more persons and for those with very high or low incomes—separate expenditure patterns were estimated for use in the present report. The methods of making these estimates are discussed below in the subsection "Estimating the Data for Certain Family Types and Income Levels."

Deriving the Spending Patterns of Component Groups of Families

The sample expenditure data from the Study of Consumer Purchases, described in the preceding section of the appendix, provided the basic material for estimating family patterns of spending. It is proposed in this subsection to discuss the methods used in grouping and combining these data to derive the patterns for component groups of families.

The Sample Data Used

Expenditure data were collected in the Study of Consumer Purchases from nonrelief families living in the 51 cities, 140 villages, and 66 farm counties listed in section 2 of this appendix.[1] The number of sample cases that were used in constructing the family patterns presented in this report are summarized by income level and type of community in table 1B. This table also summarizes the sample data utilized for single individuals of each sex.

Within each of the communities sampled in the Study of Consumer Purchases, the data were collected and recorded for families in each of five to seven family-type groups, and, in all except the farm units, were further subdivided into six occupational groups. In the southern communities sampled and in two of the North Central cities—New York City and Columbus, Ohio—separate tabulations of expenditure data were made for Negro as well as for white families, with the same subclassifications listed above. In Southern farm units separate samples were obtained for both Negro and white operators and sharecroppers, with the further subclassification by family type.

The expenditure data for these qualitative groups were classified according to 20 different income classes—ten $250 classes from $0 to $2,500, five $500 classes to $5,000, two $2,500 classes to $10,000, two $5,000 classes to $20,000, and $20,000 and over.

The preparation of expenditure patterns for such a large number of qualitative groups, the derivation of population weights in such detail, and the carrying through of the necessary elaborate process of weighting the patterns would have involved a prohibitive statistical job. It was obviously necessary, therefore, to reduce the number of groups for which expenditure patterns were to be prepared.

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[1] See pp. 104–105.

TABLE 1B.—*Sample cases used in constructing spending patterns for families and single individuals* [1]

Income level	All families and single individuals	Families [2]				Single individuals		
		Total	Urban communities	Villages	Farms	Total	Single men	Single women
Under $250	712	712	62	138	512	-----	-----	-----
$250–$500	2,957	2,940	354	550	2,036	17	3	14
$500–$750	4,578	4,476	780	1,080	2,616	102	43	59
$750–$1,000	5,105	4,923	1,216	1,317	2,390	182	74	108
$1,000–$1,250	4,784	4,646	1,607	1,218	1,821	138	49	89
$1,250–$1,500	4,658	4,568	1,965	1,093	1,510	90	28	62
$1,500–$1,750	4,004	3,877	1,882	884	1,111	127	47	80
$1,750–$2,000	3,576	3,500	2,043	696	761	76	25	51
$2,000–$2,500	5,442	5,399	3,528	860	1,011	43	28	15
$2,500–$3,000	2,537	2,506	1,704	264	538	31	15	16
$3,000–$4,000	2,515	2,485	1,756	263	466	30	22	8
$4,000–$5,000	1,042	1,029	824	62	143	13	10	3
$5,000–$10,000	840	830	670	52	108	10	9	1
$10,000–$15,000	90	89	77	1	11	1	1	-----
$15,000–$20,000	21	17	15	-----	2	4	3	1
$20,000 and over	15	14	13	1	-----	1	1	-----
All levels	42,876	42,011	18,496	8,479	15,036	865	358	507

[1] For sources of sample data, see p. 121 and pp. 142–145.

[2] In estimating outlays for personal taxes and for the different types of gifts made by families, about 8,500 schedules from small cities were used in addition to the 42,011 family schedules shown in this table

Such reductions were made by three general methods. In the first place, the sample data for certain communities were not utilized.[2] Secondly, various combinations of the sample data were made by pooling the schedules for related groups of families. A certain amount of such pooling had been done by the Bureaus in the original tabulations; further pooling was carried through in building up the patterns for broader groups of families for use in the present report. Thirdly, various other combinations of the patterns for related groups were made by weighting the data for the various groups according to the frequencies shown by the random income sample.

Testing the Variations in Spending Patterns

Before any combinations of the sample data were carried through, however, certain tests were made to determine whether there were significant differences in the patterns of spending of the groups to be pooled or whether the variations shown by the sample data were no greater than could be expected under the conditions of random sampling.[3] In cases where the tests failed to establish significant differences in the spending patterns of the tested groups, data for these families were pooled; that is, in obtaining the average expenditure pattern for families in these groups, the expenditure figures for each category of disbursement were combined by giving each sampled family an equal weight. This method was used for combining the data for similar qualitative groups in communities of the same type within a region, and for certain of the occupational and family-type combinations discussed below.

For certain other groups of families, tests indicated that variations in spending patterns, though not pronounced, were greater than could be accounted for by sampling fluctuations. In such cases—i. e., in certain of the occupational and family-type combinations discussed below—random sample weights were used. That is, the average expenditure figures for each qualitative group of families were weighted by the frequency of the group in the random income sample.[4]

Combining Data for Various Sampled Communities

One of the first steps in reducing the number of qualitative groups for which spending patterns were to be prepared was to combine the expenditure data for sample communities within the same type of community grouping in each of the five geographic regions, maintaining the separate classifications by income level, family-type, occupation, and color group. As indicated above, part of the work of combining the data for the various sample communities had been done by the two operating Bureaus, which tabulated the data according to analysis units, rather than individual communities.

The pooling of the sample data for various communities of the same type resulted in 33 analysis units—15 urban and 18 rural. Within each of these units the data for the several occupational and family-type groups were further combined by the procedures described in later subsections.

Urban Units.—No pooling of the data for metropolises or for large cities was necessary, since data from only one sample community of a given type within a region was utilized for each qualitative group of families.[5] The expenditure data for metropolises were classified into two analysis units, one for white and the other for Negro families (the former based on the sample taken in Chicago, Ill., and the latter on that taken in New York City). Data for large cities were classified into seven analysis units, one for white families and another for Negro families in both the North Central and the Southern regions, and one for white families in each of the three other regions.

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[2] For sample communities omitted from this study, see pp. 104–105.

[3] The method of ranks used in making these tests is outlined in an article by Friedman, Milton; "The Use of Ranks to Avoid the Assumption of Normality Implicit in the Analysis of Variance," *Journal of the American Statistical Association*, Vol. 32, December 1937, pp. 675–701.

[4] The weights used were the frequencies in the "regular" income sample only, exclusive of the "ineligible" sample. For description of the income sample, see pp. 105–106.

[5] The sample data collected from white families in New York City and in Omaha-Council Bluffs, Nebr.-Iowa, were not utilized in the present estimates. For discussion, see pp. 104 and 129–130.

The expenditure data for the several middle-sized cities within each of the five geographic regions were pooled. The six analysis units for this type of community included separate units for white families and for Negro families in the South.

Data for small-city families were not utilized in deriving average disbursement figures for the 16 main categories and the subcategories under food and housing. In estimating the breakdown of the category "gifts and personal taxes" into taxes and various types of gifts, however, data for small cities other than those in the South were used.

Rural Units.—Within each of the five geographic regions the expenditure data for all villages were pooled. In the South, separate tabulations were made for white and for Negro families, resulting in six village analysis units in all.

The sample data for the 66 farm counties had been pooled by the Bureau of Home Economics into 20 tabulation units. The sample data for four of these units—Massachusetts, dairy and poultry; New Jersey, truck farming; North Carolina, self-sufficing farms; and Oregon, part-time farming—were omitted for purposes of this report. Consumption data for the Massachusetts unit were not fully tabulated, and data for the other three units were omitted on the grounds that the population represented by the samples was small, and that the reliability of the final estimates would in all probability not be increased sufficiently by their inclusion to justify the additional time and labor required.

The 16 farm units from which sample data were used were combined into 12 units by pooling the data for several units in the South. These 12 analysis units included 1 for the New England region, 3 for the North Central region, 2 for the Mountain and Plains region, 2 for the Pacific region, and 4 for the Southern region. These analysis units represented 9 farm areas or types of farming.[6] The eight analysis units in the first 4 regions each represented a distinct farm area. In the South, however, data for all of the sampled farm areas had been pooled, with separate analysis units retained for operators and for sharecroppers within each color-group.

Combining Data for Occupational Groups

Tests of the expenditure data were made to determine whether the expenditure patterns of the several occupational groups differed significantly. It appeared that differences in the spending habits of clerical families and salaried and independent business and professional families (occupations 1 through 5) at the same income level were not significant. The spending habits of wage-earning families (occupation 6), on the other hand, were found to differ from those in the other occupational groups, not markedly but sufficiently to require appropriate weighting in combining this with the other occupational groups.

Urban Units.—The data for all nonfarm occupations other than wage earners were therefore pooled at each income level within the several urban analysis units. Such combinations were made within each of the family-type groupings discussed below.[7] The average expenditure figures for this pooled group were then combined with the averages for the wage-earning group by means of the random sample weights for these groups obtained from the Study of Consumer Purchases.

Rural Units.—In the case of the village analysis units, the data for all of the six nonfarm occupational groups were pooled. Weighting was not considered necessary for these units because the methods of collecting the data resulted in a representation of the different occupational groups in essentially the same proportions as they occurred in the random sample.[8]

Farming is, of course, an occupational as well as a type of community grouping. As indicated above, separate patterns of spending were prepared for farm families in nine types of farming area, each type distinguished by a certain degree of uniformity in the kind and relative amounts of crops and livestock, and in the methods of production. The designation of each type of farming is given in table 2B.

As has already been indicated, the expenditure sample covered eight types of farming in the New England, North Central, Mountain and Plains, and Pacific regions. The expenditure data collected in the various counties within each of these farm areas were pooled. In the South, all of the expenditure data from farm counties in the four farm areas, covering cotton and tobacco growers in North and South Carolina and cotton growers in Georgia and Mississippi counties, were pooled. However, four groupings representing the operator-sharecropper status of white and Negro families were retained in this pooling procedure. Thus the ownership status, rather than the type of farming, represented the occupational grouping in this region.

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[6] For designations of the types of farming, see p. 105.

[7] It should be noted that in carrying through the actual statistical computations, many of the occupational and family-type combinations were made at the same time. The two processes are described separately in this methodology in order to indicate more clearly the nature of the combinations effected.

[8] For further explanation, see p. 106. Tests indicated that differences between pooled and weighted averages in these units were small.

Combining Data for Family-Type Groups

Expenditure schedules from families of five family types were collected in each sampled community. These types—designated I, II, III, IV, and V—included families of 2, 3, 4, 3 or 4, and 5 or 6 persons, respectively.[9] In addition, expenditure data from families of two other family types (VI and VII), representing 5 or 6 person families of different composition, and 7 or 8 person families, were collected for Negro and white families in all rural communities in the South, for Negro families in Atlanta, Ga., and for white families in all communities in the North Central region except New York City.[10]

The problem of combining the data for the various family types was a complicated one, for several reasons. In the first place, the population weights which were to be used to extend the sample data to cover the entire population were based on family-size groupings rather than family types. It was decided, therefore, to combine the expenditure data so that patterns could be obtained for 3 family-size groups—families of 2 persons, 3 to 6 persons, and 7 or more persons—with each group including one or more family types. On the other hand, tests of the factors influencing the spending habits of families revealed that family type was significant in explaining variations in expenditures for most categories of disbursement. The data for the several family types could not be pooled, therefore, without introducing a bias into the estimates.

The methods used in constructing expenditure patterns for the three family-size groups are described below. These methods differed in some respects for urban and for rural families, because of different combinations of the sample data for the several family types made by the Bureaus in the original tabulations.

Urban Units.—The procedure used for combining the data for various family types can be summarized as follows:

1. The data for family type I, the only type of 2-person family, were used to represent the expenditure pattern for this family-size group.

2. The data for family types II, III, and IV, including families of 3, 4, and 3 or 4 persons, respectively, were pooled to derive an expenditure pattern for 3- and 4-person families. Family type V was taken as representative of all 5- and 6-person families.[11] Random sample weights were then used to combine the data for family type V with the pooled data representing the 3- and 4-person families, in order to obtain the average expenditure pattern at different income levels for the 3- to 6-person family group. These weights were the frequencies of all 3- and 4-person families and of all 5- and 6-person families in the random income sample.[12]

3. The data for family type VII, consisting of families of 7 or 8 persons, were used to represent the pattern of spending of families of 7 or more persons. Since data for this family type had been collected in only part of the sample communities, it was necessary, in the case of many analysis units, to estimate the pattern of spending of large families. The methods of deriving these estimates, based on the available data for family type VII, are described below under the heading "Estimating the Data for Certain Family Types and Income Levels."

For urban units, combinations of the data for the various family types were made within each of the two occupational groupings described in the preceding subsection.

Rural Units.—Certain modifications of the above procedure were necessary in the case of village and farm families.[13] For most rural analysis units, the available tabulations presented the data for family type II in combination with the data for family type III, and those for family type IV in combination with those for family type V. The average expenditure figures for the two pooled groups represented 3 to 4 person families, and 3 to 6 person families, respectively. In order to obtain a pattern of spending for 3 to 6 persons which would adequately represent all types of families having that number of persons, a separate set of average expenditures was estimated for family type V, against which the population weights for family types VI and VIII could be applied. The method of obtaining estimates for this family type is described below in the subsection "Estimating the Data for Certain Family Types and Income Levels."

Random sample weights were then used to combine the three sets of average expenditure figures. The pooled data for family types II and III were given a weight

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[9] The family types referred to in this section are defined as follows:

Type designation	Composition of family	Number of persons in family
I	Husband and wife only	2
II	Husband, wife, and 1 child under 16	3
III	Husband, wife, and 2 children under 16	4
IV	Husband, wife, 1 person 16 or over and 1 or no other person.	3–4
V	Husband, wife, 1 child under 16, 1 person 16 or over, and 1 or 2 other persons regardless of age.	5–6
VI	Husband, wife, 3 to 4 children under 16	5–6
VII	Husband, wife, 1 child under 16, 4 or 5 other persons regardless of age.	7–8
VIII	Husband, wife, 3 to 4 persons 16 or over (no expenditure data were collected for this family type).	5–6

[10] The sample expenditure data for white families in New York City were not utilized in the present report.

[11] The expenditure data for family type VI, available for certain of the analysis units, were not utilized in this report.

[12] That is, the frequencies of family types II, III, and IV, and of family types V, VI, and VIII in the random sample.

[13] The same modifications in method were necessary for both urban and rural data, in estimating average personal taxes paid by families at different income levels and average outlays for gifts of various kinds. Data for these subcategories were available only for the same combinations of family types as were available for the main categories of expenditure for rural families.

equal to the sum of the frequencies of these family types in the random income sample. Similarly, the average expenditure figures for the pooled family types IV and V were weighted by the combined frequencies of these two family types in the random sample.

As indicated above, the estimated expenditure pattern for family type V was assumed to represent the average spending pattern of families belonging to family types VI and VIII. All 3 of these family types include families of 5 or 6 persons, and the composition of family type V, with respect to numbers of persons under and over 16 years of age, could be considered as intermediate between the other two family types. That is, in family type V, one or more of the persons other than husband and wife were over 16 years of age, and one or more under 16, whereas in family type VI all persons other than husband and wife were under 16 years, and in family type VIII, all persons were 16 or over. The estimated average expenditure figures for family type V were, therefore, weighted by the sum of the frequencies of family types VI and VIII in the random sample.

Deriving the Spending Pattern of All Families

The different types of combination discussed above resulted in expenditure patterns for 99 component groups of families. These included 3 family-size groupings within each of 33 broader groups representing 15 urban and 18 rural analysis units. A summary of these groups classified by geographic region, type of community, and color group is presented in table 2B.

Weighting the Patterns of Component Groups

The pattern of spending of all families in the Nation was derived by weighting the expenditure patterns prepared for the 99 component groups of families in accordance with their importance in the total population. Since some groups of families were excluded from the expenditure sample, however, it was necessary in the course of the weighting procedure to make certain assumptions as to patterns of spending of such unsampled groups. While the average family spending pattern might not have been greatly altered if the unsampled groups had been excluded from the population weights, it was essential that such groups be taken into account, since it was proposed to estimate aggregate as well as average family disbursements.

The expenditure pattern of all nonrelief families was derived by weighting the 99 sets of patterns in accordance with the frequencies in the 1935–36 population of the groups that were assumed to follow the various patterns. To obtain these weights the 24,913,177 nonrelief families in the United States were classified by region, type of community, color group, family size, and income level, to match as closely as possible the qualitative groups of families for which expenditure patterns were available.

TABLE 2B.—*Summary of sample expenditure patterns for component groups of families and of nonrelief population weights*

[Separate expenditure patterns and nonrelief population weights were prepared by income level for three family-size groups within each qualitative group]

Communities for which sample expenditure data were used, by region and type of community	Qualitative groups for which expenditure patterns were prepared	Nonrelief population groups used to weight sample expenditure patterns
	NEW ENGLAND	
Large cities: Providence, R. I.	1. Native-white eligible families.	1. All families in large cities.
Middle-sized cities: New Britain, Conn. Haverhill, Mass.	2. Native-white eligible families.	2. All families in middle-sized and small cities.
Village units: Vermont-Massachusetts.	3. Native-white eligible families.	3. All families in rural nonfarm areas.
Farm units: Vermont—dairy	4. Native-white eligible families.	4. All farm families in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.
	NORTH CENTRAL	
Metropolises: New York, N. Y. Chicago, Ill.	5. Native-white eligible families.[1]	5. All native-white and foreign-born white families in metropolises.
	6. Negro eligible families.[2]	6. All Negro and other color families in metropolises.
Large cities: Columbus, Ohio	7. Native-white eligible families.	7. All native-white and foreign-born white families in large cities.
	8. Negro eligible families.	8. All Negro and other color families in large cities. All Negro and other color families in middle-sized and small cities.
Middle-sized cities: Muncie, Ind. New Castle, Pa. Springfield, Ill.	9. Native-white eligible families.	9. All native-white and foreign-born white families in middle-sized and small cities.
Village units: Pennsylvania-Ohio. Michigan-Wisconsin. Illinois-Iowa.	10. Native-white eligible families.	10. All families in rural nonfarm areas.
Farm units: Pennsylvania—general. Ohio—general.	11. Native-white eligible families.	11. All farm families in Pennsylvania, Ohio, and New Jersey.
Michigan—dairy and general. Wisconsin—dairy.	12. Native-white eligible families.	12. All farm families in Michigan, Wisconsin, New York, and Minnesota.
Illinois—corn or cash grain. Iowa—animal specialty.	13. Native-white eligible families.	13. All farm families in Illinois, Iowa, Indiana, and Missouri.
	SOUTH	
Large cities: Atlanta, Ga.	14. Native-white eligible families.	14. All native-white and foreign-born white families in large cities.
	15. Negro eligible families.	15. All Negro and other color families in large cities.
Middle-sized cities: Columbia, S. C. Mobile, Ala.	16. Native-white eligible families.	16. All native-white and foreign-born white families in middle-sized and small cities.
	17. Negro eligible families.	17. All Negro and other color families in middle-sized and small cities.
Village units: Georgia-South Carolina. North Carolina-Mississippi.	18. Native-white eligible families.	18. All native-white and foreign-born white families in rural nonfarm areas.
	19. Negro eligible families.	19. All Negro and other color families in rural nonfarm areas.

[1] Pattern for native-white eligible families based on Chicago data only.

[2] Pattern for Negro eligible families based on New York data only.

TABLE 2B.—*Summary of sample expenditure patterns for component groups of families and of nonrelief population weights*—Continued

[Separate expenditure patterns and nonrelief population weights were prepared by income level for three family-size groups within each qualitative group]

Communities for which sample expenditure data were used, by region and type of community	Qualitative groups for which expenditure patterns were prepared	Nonrelief population groups used to weight sample expenditure patterns
SOUTH		
Farm units: North Carolina—cotton and tobacco. South Carolina—cotton and tobacco. Georgia—cotton. Mississippi—cotton.	20. Native-white eligible farm operators.	20. All native-white and foreign-born white farm operators in North Carolina, South Carolina, Georgia, Mississippi, Delaware, Maryland, Virginia, West Virginia, Florida, Kentucky, Tennessee, Alabama, Arkansas, Louisiana, Oklahoma, Texas.
	21. Native-white eligible sharecroppers.	21. All native-white and foreign-born white sharecroppers in the States listed above.
	22 Negro eligible farm operators.	22 All Negro and other color farm operators in the States listed above.
	23. Negro eligible sharecroppers.	23. All Negro and other color sharecroppers in the States listed above.
MOUNTAIN AND PLAINS		
Large cities: Denver, Colo.	24. Native-white eligible families.	24. All families in large cities.
Middle-sized cities: Butte, Mont. Pueblo, Colo.	25. Native-white eligible families.	25. All families in middle-sized and small cities.
Village units: Kansas-North Dakota. Colorado - Montana - South Dakota.	26. Native-white eligible families	26. All families in rural nonfarm areas.
Farm units: North Dakota—wheat or cash grain. Kansas—wheat or cash grain.	27. Native-white eligible families.	27. All farm families in North Dakota, South Dakota, Kansas and Nebraska.
Colorado - Montana - South Dakota—range livestock and cash grain.	28. Native-white eligible families.	28. All farm families in Colorado, Montana, Idaho, Wyoming, Nevada, Utah, Arizona, New Mexico.
PACIFIC		
Large cities: Portland, Oreg.	29. Native-white eligible families.	29 All families in large cities.
Middle-sized cities: Aberdeen-Hoquiam, Wash. Bellingham, Wash. Everett, Wash.	30. Native-white eligible families.	30 All families in middle-sized and small cities.
Village units: California. Oregon-Washington.	31. Native-white eligible families.	31. All families in rural nonfarm areas.
Farm units: Washington—dairy, poultry. Oregon—general and fruit.	32. Native-white eligible families.	32. All farm families in Washington and Oregon.
Central California—fruit and dairy. Southern California—fruit.	33. Native-white eligible families.	33. All farm families in California.

This division of the population had already been accomplished in the companion report, *Consumer Incomes in the United States*, in the process of building up the income distribution for all families in the Nation. Separate frequency distributions by income level had been prepared for component groups of the family population classified by region, type of community, color-nativity, family size, and occupation.[14]

The groups of families in the population that were matched against the 99 expenditure patterns are summarized in table 2B.[15] The weighting procedure for each component group involved multiplying the average expenditure figure for each category of disbursement at each income level by the appropriate number of families in the population. The resulting aggregate disbursements for each category were summed by income level for all component groups of families, and the final aggregates were divided by the total number of nonrelief families at the various income levels.

Within the urban units, weights for each of the 3 family-size groups were applied against patterns prepared on the basis of 20 income levels.[16] In the case of rural units, data for the 9 income levels between $2,000 and $10,000 had been pooled in the tabulating process to form 5 income levels.[17] Therefore patterns for these groups were prepared only for these wider income intervals. In deriving the spending pattern for all families, the patterns for rural and urban units were combined, as described above, on the basis of population weights. At this stage the averages for urban units were combined, by means of population weights, into the wider income intervals matching those for rural groups.

Sample data were not available from the Study of Consumer Purchases for all income classes and for all family-size groups within each of the 33 analysis units. The preparation of estimated spending patterns for various groups is described below under the heading "Estimating the Data for Certain Family Types and Income Levels."

In the process of building up the average expenditure pattern of all families, patterns of spending at the several income levels were derived for various major groups of families. These patterns, which will be presented in a subsequent report on family expenditures, include nonrelief families living in several geographic regions; nonrelief families living in different types of community; and separate patterns for white and for Negro families in various areas.[18]

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[14] Since expenditure patterns were not available for as many qualitative groups as were used in the report on consumer incomes, it was necessary to add together, by income level, two or more of the frequency distributions in order to obtain the income distribution for each broad group of families used to weight the 99 sets of expenditure patterns. For frequency distributions available, see *Consumer Incomes in the United States*, pp. 53–66.

[15] As table 2B indicates, Negro and other color families of each family-size group in North Central middle-sized and small cities were assumed to have the same pattern of spending as Negro families sampled in Columbus, Ohio. Thus, 102 sets of population weights were prepared to match the 99 qualitative groups for which expenditure patterns were available.

[16] For ranges included in each income level, see p. 121.

[17] The five levels were $2,000–$2,500, $2,500–$3,000, $3,000–$4,000, $4,000–$5,000, and $5,000–$10,000.

[18] The patterns for the five geographic regions were utilized in the present report, as explained below, in estimating the patterns of spending at the very high income levels.

Patterns of Unsampled Groups of Nonrelief Families

The expenditure data collected in the Study of Consumer Purchases covered only nonrelief native-white families (and Negro families in certain areas) that included both husband and wife and met certain further eligibility requirements.[19] There were, therefore, certain groups in the population for whom no expenditure patterns were available. It was necessary, in extending the sample data on a national basis, to assume that these groups followed patterns of spending similar to those found to prevail for closely related families included in the sample.

Foreign-born White Families.—In weighting the sample patterns the assumption was made that the average disbursements of foreign-born white families were the same as those of native-white families having similar characteristics as to income, family size, type of community, and region. The validity of this assumption is of course questionable, but the paucity of available data makes it impossible to estimate the degree of error which may have been introduced by the methods used.

However, preliminary results of comparisons made by the Bureau of Labor Statistics of the spending patterns of native-born and foreign-born white families in several of the cities included in the "Study of Money Disbursements of Wage Earners and Lower-Salaried Clerical Workers," conducted in 1934–36, seem to be in accord with the assumptions made in the present report.[20] Though the extent of variability among the expenditures of the two nativity groups cannot be measured until results of this and other studies are further analyzed, the preliminary results indicate that disparities in patterns of spending for foreign and native-born whites in the same community do not differ markedly within the same income class. Major differences in the average spending patterns for all income levels combined may be caused by differences in the income distributions of the two groups—a factor which was accounted for in the preparation of the population weights used in the present study.

Other Ineligible Groups.—Similar assumptions as to the applicability of sample patterns were made in the case of other groups of families that were not represented in the sample. Thus, native-white "broken" families—i. e., families not containing both husband and wife—were assumed to follow the patterns of spending of those normal families in the sample that they most closely resembled with respect to income, family size, and geographic location. Negro families were included in the weights used against the patterns of white families in areas where the sample did not include Negro families. Since Negroes were included in the sample in areas where they formed a sizable portion of the population, the error introduced by this assumption was probably very small.

In the case of the small group of families with negative incomes it was necessary to assume that they followed the patterns of spending of families in the lowest positive income class $0–$250. Families that had moved during the schedule year, couples that had been married less than 1 year, and families that had entertained guests for a long period during the year were other examples of nonrelief groups considered ineligible for the expenditure sample in the Study of Consumer Purchases. Consequently, it was necessary to assume that these families followed the patterns of spending of sampled families of the same size living in the same geographic area, and falling in the same income level.

Patterns of Small-City Families

In view of the limitations in the time available for preparing the estimates, the sample expenditure data collected in small cities were not utilized in the present report.[21] Instead, the assumption was made that families living in small cities followed the pattern of spending of middle-sized city families in the same geographic region, family-size, color, and income-level grouping.[22] It has been possible to make certain statistical tests of the extent to which the all-family pattern of spending, presented in tables 1 and 2, would have been altered had the small-city sample data been included. These tests involved the extension of the sample base to include, in addition to the 42,000 sample cases used in this report, approximately 8,500 additional schedules from 25 small cities located in four geographic regions.[23] The results of the tests, presented in tables 3B and 4B below, indicate that the all-family expenditure estimates would not have been significantly changed if the sample data from small cities had been utilized.

In carrying through these tests, average expenditure figures from the small-city samples were substituted for the middle-sized city figures which had been used as representative of small-city families in preparing the all-family pattern shown in the present report. The tests were necessarily confined to certain categories of disbursement for which the small-city sample data for the several family-type and occupational groups had already been combined. Such combinations had been made for nine categories in unpublished estimates prepared by the National Resources Committee showing a breakdown of certain of the major categories of disbursement into a more detailed list of goods and services. On the basis of these figures the tests for small cities were carried through for the following categories: Food, housing (money expense), housing (imputed value), household operation, automobile, medical care, personal care, recreation, and gifts and personal taxes.

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[19] For discussion of eligibility requirements, see p. 106

[20] Preliminary results were available for Grand Rapids, Mich., New York City, and Salt Lake City, Utah.

[21] Except, as has been noted above, that data for most small cities were used in estimating average personal taxes paid and average gifts of various types.

[22] Small cities, as defined in the present report, include cities with a population of 2,500 to 25,000; middle-sized cities those with a population of 25,000 to 100,000. For population range of small and middle-sized cities sampled, see p. 104

[23] Some 1,600 schedules from the four small cities sampled in the Southern region were not available for these tests.

TABLE 3B.—*Comparison of estimates of aggregate disbursements of all families for selected categories, excluding and including sample data collected in small cities, for income range $750–$3,000, 1935–36*

Category of disbursement [2]	Aggregate disbursements (in millions) of all families with incomes between $750 and $3,000 [1]			
	Excluding small city data		Including small city data [5] (without adjustment to income report figures)	Ratio of column (3) to column (2)
	From present report [3]	Before adjustment to income report figures [4]		
	(1)	(2)	(3)	(4)
Food	$9,426	$9,509	$9,475	99.6
Housing—money expense	3,298	3,339	3,289	98.5
Housing—imputed value	1,430	1,433	1,432	100.0
Household operation	2,994	3,023	3,037	100.5
Automobile	2,116	2,133	2,153	100.9
Medical care	1,191	1,206	1,223	101.4
Recreation	709	717	719	100.3
Personal care	558	564	564	100.0
Gifts and personal taxes	775	783	789	100.7

[1] 65 percent of all families and 59 percent of their aggregate income are included in the income range from $750 to $3,000.

[2] Disbursements for the 9 categories listed account for about 80 percent of the total family income within the income levels covered.

[3] See tables 24A and 25A.

[4] For explanation of this adjustment, see pp. 148–151.

[5] Including sample expenditure data collected in 25 small cities.

The tests were confined to the seven income levels between $750 and $3,000. This income range accounted for 65 percent of all families and 59 percent of total family income in 1935–36.[24] The income levels below $750 and above $3,000 were omitted because the small-city estimates available for the tests at these levels were more dependent on extrapolation than were the estimates at the intermediate levels, and there were certain unavoidable differences in the extrapolation procedures used for the small-city estimates and for the estimates shown in the present report.[25]

The results of the tests are summarized in terms of aggregate disbursements in table 3B above. It should be noted that the all-family expenditure figures that were used as a basis of comparison in these tests were the unadjusted aggregates before they were corrected to sum to the estimate of total family income presented in a previous report of the National Resources Committee, *Consumer Incomes in the United States.*[26] This was done in order to avoid the additional work of adjusting the new pattern resulting from the inclusion of small cities to the estimate of aggregate family income presented in the income report.

Four main steps were involved in carrying through the tests for small cities:

1. In deriving the all-family expenditure pattern used in the present report, the average expenditure figures from the middle-sized city samples had been multiplied by the combined population weights for middle-sized plus small cities. The first step, therefore, was to subtract the estimated aggregate expenditures of families in both sizes of city from the all-family aggregates at each income level. However, since sample data for Southern small cities were not used in these tests, this and the following step were not carried through for the Southern region.

2. Aggregate expenditure figures for small cities based on the sample data for small-city families, and aggregates for middle-sized cities based on the sample data for middle-sized city families were substituted for the figures subtracted under step 1. The small-city aggregates were derived for this purpose by summing the estimated aggregate expenditures of small-city families for the several subclasses of goods and services under each of the nine categories tested. The middle-sized city aggregates in each region were obtained by multiplying the middle-sized city patterns at each income level by the total number of middle-sized city families at the level.

3. The new all-family aggregates for the income levels from $750 to $3,000 were summed for each category.

4. The new all-family aggregates at each income level between $750 and $3,000 were divided by the total number of families at the level to derive the average expenditure figures to be compared with the family spending pattern used in the present report.

Table 4B compares the estimates of average family expenditures based on sample data including and excluding the small cities. The table indicates that at each of the income levels studied and for each of the categories tested, the change in the all-family spending pattern resulting from the inclusion of small cities is very minor indeed. In a second report on family expenditures, now in preparation, it is proposed to study the differences in the patterns of spending at the same level of income of families living in various types of community, geographic regions, and belonging to different family-size and color groups. In this connection, a detailed analysis of the variations in spending among families living in middle-sized and in small cities will be presented.

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[24] Aggregate disbursements of all families in these income levels for the nine categories tested accounted for about 80 percent of total family income in this income range.

[25] For the description of extrapolation procedures used in present report, see pp. 132–141.

[26] For explanation of adjustment of aggregate disbursement figures, see pp. 148–151.

TABLE 4B.—*Comparison of estimates of average disbursements of all families for selected categories, excluding and including sample data collected in small cities, at selected income levels, 1935–36*

Income level[1]	Average disbursements of all families		
	Excluding small city data		Including small city data[4] (without adjustment to income report figures)
	From present report[2]	Before adjustment to income report figures[3]	
A. FOOD			
$750–$1,000	$380	$384	$383
$1,000–$1,250	433	438	437
$1,250–$1,500	487	490	488
$1,500–$1,750	527	530	528
$1,750–$2,000	558	571	570
$2,000–$2,500	617	621	617
$2,500–$3,000	690	691	692
B. HOUSING—MONEY EXPENSE			
$750–$1,000	$115	$116	$115
$1,000–$1,250	142	144	141
$1,250–$1,500	158	160	157
$1,500–$1,750	185	187	186
$1,750–$2,000	216	221	216
$2,000–$2,500	242	243	240
$2,500–$3,000	274	277	276
C. HOUSING—IMPUTED VALUE			
$750–$1,000	$46	$47	$46
$1,000–$1,250	61	61	61
$1,250–$1,500	72	72	73
$1,500–$1,750	82	83	82
$1,750–$2,000	86	87	87
$2,000–$2,500	107	106	106
$2,500–$3,000	130	132	130
D. HOUSEHOLD OPERATION			
$750–$1,000	$106	$107	$108
$1,000–$1,250	130	131	131
$1,250–$1,500	149	149	150
$1,500–$1,750	166	167	169
$1,750–$2,000	186	191	192
$2,000–$2,500	213	216	219
$2,500–$3,000	260	261	260
E. AUTOMOBILE			
$750–$1,000	$44	$44	$45
$1,000–$1,250	70	71	72
$1,250–$1,500	93	93	96
$1,500–$1,750	123	124	125
$1,750–$2,000	154	158	159
$2,000–$2,500	200	200	202
$2,500–$3,000	242	243	243
F. MEDICAL CARE			
$750–$1,000	$38	$38	$39
$1,000–$1,250	47	47	48
$1,250–$1,500	57	58	59
$1,500–$1,750	71	72	72
$1,750–$2,000	79	81	81
$2,000–$2,500	91	93	95
$2,500–$3,000	109	109	112
G. RECREATION			
$750–$1,000	$17	$17	$17
$1,000–$1,250	25	25	25
$1,250–$1,500	31	32	33
$1,500–$1,750	42	42	42
$1,750–$2,000	49	50	50
$2,000–$2,500	62	62	63
$2,500–$3,000	81	82	81
H. PERSONAL CARE			
$750–$1,000	$18	$19	$19
$1,000–$1,250	24	24	24
$1,250–$1,500	27	28	27
$1,500–$1,750	32	32	32
$1,750–$2,000	35	36	36
$2,000–$2,500	42	42	42
$2,500–$3,000	49	49	49
I. GIFTS AND PERSONAL TAXES			
$750–$1,000	$18	$18	$18
$1,000–$1,250	24	25	25
$1,250–$1,500	34	34	35
$1,500–$1,750	44	44	44
$1,750–$2,000	53	54	54
$2,000–$2,500	71	71	73
$2,500–$3,000	98	99	97

Patterns of Metropolis Families

At the same time that the tests were made to determine the effect on the all-family estimates of the inclusion of the small-city data, similar tests were carried through for the New York City white family sample of approximately 1,700 cases. The present estimates of family expenditures include sample metropolis data collected from approximately 2,400 white families living in Chicago, Ill., and 300 Negro families in New York City. The sample data for white families in New York City were not utilized in the present report because it appeared that the possible improvement in the all-family pattern which would result from their inclusion would be too small to justify the time required to incorporate them.

The sample data for New York City white families were not available combined into the same family-type and occupational groups used in the present report for the Chicago sample. In view of the additional time which would have been required, it was decided not to make these combinations for the New York City white sample but to use somewhat cruder methods for the purpose at band. The methods used in carrying through the tests were as follows:

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[1] 65 percent of all families and 59 percent of their aggregate income are included in the income range from $750 to $3,000.

[2] See tables 1, 2, and 9A.

[3] For explanation of this adjustment, see pp. 148–151.

[4] Including sample expenditure data collected in 25 small cities.

1. The estimated aggregate expenditures of metropolis white families that were used in the present report were subtracted from the all-family aggregates at each income level.

2. In order to obtain new aggregates for metropolis white families which were substituted for the figures subtracted under step 1, the following steps were taken:

a. One set of aggregate expenditures of metropolis white families was obtained by multiplying average expenditures of Chicago white families, as shown in a recent mimeographed release of the Bureau of Labor Statistics,[27] by the total number of metropolis white families at each income level.

b. A second set of aggregates was obtained similarly by using a weighted average expenditure pattern based on the expenditure figures for white families in New York City and Chicago, as shown in the same Bureau of Labor Statistics release. The New York City figures were given a greater weight than the Chicago figures.

c. Percentage relationships between the aggregates obtained in step (a) and in step (b) were calculated. These percents were applied against the aggregates used for metropolis white families in the present report, to obtain the aggregate figures for metropolis white families which were then substituted in the all-family aggregates.

3. The new all-family aggregates for the income levels from $750 to $3,000 were summed for each category.

Table 5B.—*Comparison of estimates of aggregate disbursements of all families for selected categories, excluding and including sample data collected for white families in New York City, for income range $750–$3,000, 1935–36*

Category of disbursement [2]	Aggregate disbursements (in millions) of all families with incomes between $750 and $3,000 [1]			
	Excluding sample metropolis data for New York City white families		Including sample metropolis data for New York City white families (without adjustment to income report figures)	Ratio of column (3) to column (2)
	From present report [3]	Before adjustment to income report figures [4]		
	(1)	(2)	(3)	(4)
Food	$9,426	$9,509	$9,571	100.6
Housing—money expense and household operation	6,292	6,362	6,442	101.3
Housing—imputed value	1,430	1,433	1,414	98.7
Automobile	2,116	2,133	2,098	98.4
Medical care	1,191	1,206	1,206	100.0
Recreation	709	717	723	101.0
Personal care	558	564	565	100.1
Gifts and personal taxes	775	783	788	100.6

[1] 65 percent of all families and 59 percent of their aggregate income are included in the income range from $750 to $3,000.

[2] Disbursements for the 9 categories listed account for about 80 percent of the total family income within the income levels covered.

[3] See tables 24A and 25A.

[4] For explanation of this adjustment, see pp. 148–151.

4. The new all-family aggregates at each income level between $750 and $3,000 were divided by the total number of families at the level to derive average expenditure figures for the several categories.

The results of these tests are summarized in table 5B. As in the case of the small cities, it may be seen that the final estimates of aggregate family disbursements would have differed very little from those presented in this report had the New York City sample of white families been included. The figures on average expenditures, derived under step 4, indicate that the all-family average spending pattern would have been only slightly altered if the New York City sample of white families had been included.

Patterns of Relief Families

In order to obtain the expenditure pattern of all families in the Nation it was necessary to assume that the average disbursements of relief families were the same as those of nonrelief families in the same region, degree of urbanization,[28] and income class. Consumption data for relief families were not collected in the Study of Consumer Purchases, and adequate information from other sources was not available for the relief group.

Validity of Assumptions.—Budget studies prepared by various welfare and relief agencies for the purpose of determining the amounts of relief needed by different types of families were not suitable for use in estimating the consumption patterns of relief families. Such studies include estimates of the amounts which families could or should spend for different classes of goods and services in order to meet various standards of adequate diet, housing, medical care, etc., but they furnish no information as to the way in which the relief family actually distributed its income among the different categories of disbursement in a given year.

The only data which furnished some check on the reliability of the methods used here were those presented in two articles by Elizabeth W. Gilboy, "The Unemployed: Their Income and Expenditure" and "The Expenditure of the Unemployed."[29] These articles embody the results of studies of relief family incomes and expenditures in Cambridge, Mass., and in five small towns in Massachusetts in 1934–35.[30]

As the author points out, the data are not satisfactory as a basis of generalization for the country as a whole. They are significant, however, in that they indicate that relief families, like nonrelief families at the lower income levels, spend on the average more than their total current income. Average expenditures of the relief group studied in Massachusetts were found to have consistently exceeded income by 15 to 20 percent. As a result of applying relief population weights against the appropriate nonrelief expenditure patterns in the present report, the net negative savings of relief families in 1935–36 have been estimated at approximately 12½ percent of relief family income, a proportion which corresponds fairly closely with the findings of the Massachusetts studies.

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[27] "How Urban Families Spend Their Incomes," Press release of July 10, 1938.

[28] Population weights for relief families at the various income levels were available for only two degrees of urbanization—urban areas and rural-town areas. For discussion, see p. 131.

[29] *American Economic Review*, June 1937, pp. 309–323 and *American Sociological Review*, December 1938, pp. 801–814. Dr. Gilboy states that these are apparently the only expenditure data which exist for any kind of relief sample, with the exception of a few incomplete schedules for relief families collected in the Study of Consumer Purchases.

[30] For a third article based on the results of these studies, see Sorenson, Helen L., and Gilboy, Elizabeth W., "The Economics of Low-Income Diets," *Quarterly Journal of Economics*, August 1937, pp. 663–680.

No attempt has been made to compare the nonrelief patterns used in the present report with the average expenditures for the several categories of current consumption shown in the Cambridge study because the information on the income and expenditures of the sampled relief families was frequently incomplete. Furthermore, according to Dr. Gilboy, certain of the necessity categories appear to have been overestimated and luxury items omitted or understated.

In considering the findings with respect to negative savings, it should be remembered that the relief families included in the present report, like those in the Massachusetts sample, were not families entirely dependent on relief. In the Cambridge sample, less than one-half of the families were in receipt of relief when the schedules were collected although all of the families sampled were eligible for relief and had applied for it. The relief group in the present study was defined to include all families that received any form of relief, however little, at any time during the year. Many of the families were dependent on relief for part of the year only, and then may have been only partially dependent. The spending patterns of such families would, therefore, be more similar to those of nonrelief families than would the spending patterns of a completely dependent relief group.

The spending habits of families that had received direct relief in kind probably differed more from those of nonrelief families than did the patterns of families that held work relief jobs or received direct relief in cash. Thus, the application of the nonrelief patterns to the group receiving direct relief in kind may have distorted somewhat the proportions of imputed and money expenses under food and housing. However, the effect on the national aggregates would be relatively small.

It must be remembered, also, that although relief families constituted approximately 15 percent of the total family population in 1935–36, their aggregate disbursements represent a much smaller proportion of the national aggregates.

Nevertheless, the possibility of error in this connection must be borne in mind in interpreting the final expenditure pattern of all families, and particularly the estimates of average and aggregate disbursements at the lower income levels. Just as was true for the spending patterns of other unsampled groups of families, further research is needed in order to make it possible to measure and explain the variations in spending patterns which may exist between the relief and nonrelief groups.

Available Population Weights.—Frequency distributions by income level were available for 10 component groups of relief families from the report on *Consumer Incomes in the United States.*[31] As was explained in that report, it was possible to prepare only two income distributions for each of the five geographic regions—one for all relief families living in large and middle-sized cities (and in metropolises in the North Central region), and the other for all relief families living in small cities, in villages, and on farms. Each of the 10 frequency distributions covered relief families of all color-nativity, occupational, and family-size groups, within a given "urban" or "rural-town" grouping.

Patterns for Component Groups of Relief Families.—Because of the nature of the available population weights for relief families, it was not possible to weight separately the average expenditure patterns for 99 qualitative groups, as was done for nonrelief families. Instead, 10 average spending patterns, based on nonrelief data, were constructed to match approximately the 10 groups of relief families for which frequency distributions were available.

A single "urban" pattern, by income level, was constructed for each of the five geographic regions to match the five groups of "urban" relief families for which income distributions were available. In other words, the frequency distribution for all relief families living in large and middle-sized cities in each region (and in metropolises in the North Central region), was applied against an estimated pattern of spending based on nonrelief urban family data, but assumed to be representative of the "urban" relief group in the region.

The pattern used for "urban" relief families in each region was constructed by weighting the average patterns for finer qualitative groups of nonrelief families—i. e., the patterns for each family-size group in each size of city within each region—in accordance with the relative proportions of nonrelief families in each of these qualitative groups.[32] For example, the average pattern of spending of "urban" relief families in New England was constructed by weighting six sets of nonrelief average expenditure patterns—those for each of three family-size groups in the Providence sample and in the pooled New Britain and Haverhill samples. The weights used were the relative proportions of nonrelief families in the three family-size groups living in all large cities and in all middle-sized and small cities in New England.[33]

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[31] For methods of estimating the income distributions for the 10 groups of relief families, see that report, pp. 60–66.

[32] Some error, probably of very small magnitude, may have been introduced into the estimates for relief families by building up the five patterns on the basis of nonrelief rather than relief family weights. Thus, in a given type of community at any given income level, the proportions of white and Negro families in the nonrelief group may

The five frequency distributions for "rural-town" families covered all relief families living in small cities, in rural nonfarm areas, and on farms in each region. The average pattern of spending of nonrelief village families in each region was assumed to apply to all of the relief families in the "rural-town" group. Implicit in the procedure used was the assumption that differences in the expenditure patterns of small city and farm families at the same income levels would tend to cancel each other and that the village sample could therefore be considered approximately representative of the entire "rural-town" group. Relief families living in rural nonfarm areas constituted almost 45 percent of the total number of "rural-town" relief families in 1935–36.[34]

The Spending Pattern of All Families

The spending pattern of all families in the Nation was derived by weighting the average patterns of nonrelief and relief families by the proportionate numbers of each group at the various income levels in 1935–36. The actual procedure used was to combine the spending patterns of the two groups within each geographic region, so that there was one all-family expenditure pattern for each region. The five regional patterns were then combined on the basis of the relative frequencies of families in the several regions at each income level. The average pattern for all income levels combined was derived by weighting the pattern at each income level by the total number of families at that income level in 1935–36.

The all-family average pattern of spending at different income levels is shown in tables 1 and 2. These tables are supplemented by tables 6A–10A in Appendix A. It should be noted that the average expenditure figures presented in these tables have been adjusted slightly in order to reconcile the estimate of aggregate disbursements for all categories with the estimate of total family income presented in the companion report on *Consumer Incomes in the United States*. The adjustments that were made are described in detail in section 5 of this appendix. They resulted in small changes in the average expenditure figures at the various income levels, but no changes were made in the percentage figures showing the proportionate allocation of income among the several categories of disbursement at each income level.

Estimating the Data for Certain Family Types and Income Levels

As has been explained above, two general methods were followed in obtaining spending patterns for unsampled groups of families. Certain groups—e. g., foreign-born families and relief families—were assumed to have followed the same patterns as those derived from the sample data for closely related groups. The process of matching available patterns against such unsampled groups has been described in the preceding section of this appendix.

For other groups of families for which expenditure data were lacking—i. e., certain family types and certain income levels—it seemed desirable to estimate separate and distinct spending patterns. These estimates were derived, first, by analyzing the relationship between income and expenditures for those family types and for those income levels for which data were available from the sample, and second, on the basis of such relationships to extend or "extrapolate" the patterns for the family types or income levels for which average expenditures were not directly available.

In this extrapolation process it was found desirable to obtain formulas, expressing in mathematical terms the relationship between income and expenditures, from which smoothed values for the average expenditures of the various groups at any income level could be computed. The following subsections describe in some detail the form of regression curve adopted for this purpose, as well as the particular procedures involved in estimating patterns, first, for those family types for which spending patterns were needed, and second, for families at the very high and the very low income levels. The necessity for the latter type of extrapolation is clearly indicated by table 1B, which reveals the relatively few sample cases for income levels below $500 and above $20,000.

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be quite different from the proportions in the relief group. Similarly, the proportions of 2 person, 3 to 6 person, and 7 or more person families at any given income level may vary as between relief and nonrelief families. The assumption implied in the weighting procedure used was that these proportions were the same for relief and for nonrelief families. The absence of income distributions for these finer qualitative groups of relief families, however, made it impossible to determine how large such variations among the relief and nonrelief groups might be.

[33] Theoretically, it would have been better to have excluded small-city families in the weighting process, since relief families in small cities were included in the "rural-town" rather than in the "urban" group in each region. Small-city families, however, had already been combined with middle-sized-city families in weighting the nonrelief patterns to obtain average patterns of nonrelief families (see table 2B). The magnitude of the additional computational work which would have been required in order to reweight the average patterns for middle-sized cities, excluding small-city families from the weights, did not appear to be justified in view of the slight differences which would result.

[34] *Consumers Incomes in the United States*, table 26B, p. 101.

Regression Equations

The form of regression equation adopted for use in estimating expenditures for each category of disbursement was $y=a+bx+c\sqrt{x}$, where x equals income, y the disbursement for a given category and a, b, and c the parameters, i. e., the constants whose values are adjusted from one category to another and from one qualitative group to another in order to make the equations fit the data. This form of curve, although not entirely satisfactory in every respect, was adopted only after considerable experimentation with various alternative forms.

A formula linear in the parameters was desirable for at least three reasons. First, expenditures estimated from the curves for the several categories should sum to total income, a condition not in general fulfilled by nonlinear formulas. Second, the parameters could be estimated by the method of least squares, which is well established in statistical theory and practice. Finally, formulas linear in the parameters are algebraically simple, so that various time-saving techniques could be utilized in the process of fitting the curves. For example, a modification of the Doolittle method of solving the normal equations could be used which would need to be carried through only once for all 16 categories of disbursement instead of separately for each category.

The actual form, $y=a+bx+c\sqrt{x}$, was selected only after several others had been tried. The linear form $y=a+bx$ was inappropriate, since many of the categories of disbursement, particularly food, savings, and gifts and personal taxes, were clearly curvilinear within the full range of income. No power of x greater than the first could be included, however, for at high incomes such a curve would have shown disbursements for some categories in excess of total income, while disbursements for other categories would have been negative. Such a curve would, therefore, not serve satisfactorily for the purpose of income extrapolation. The formula selected seemed to provide a compromise between excessive flexibility and excessive rigidity.

In fitting the curve, the observed average expenditures at various income levels were weighted by $\frac{p}{t^2}$, where p represented the number of cases on which the average was based, and t the average money expense of those families for all categories of consumption plus gifts and personal taxes. Averages based on families with small expenditures were thus given more weight than the averages for families with large expenditures. This was desirable because the expenditures of the former group were less variable than those of the latter.

Data from the Study of Consumer Purchases had indicated that the variability of disbursements for every category except savings was such that the coefficient of variation within each cell was independent of income.[35] In accordance with the principle that each observation should be weighted by the reciprocal of its sampling variance, the weight for each average should have been $\frac{p}{y^2}$. In order, however, to utilize the time-saving device of solving only one set of normal equations for each qualitative group, instead of one for each of the 16 categories, it was necessary to have the same set of weights for each category of disbursement. Hence the weighting system of $\frac{p}{t^2}$ was used as an approximate average for all categories.

Estimated Family Types

Average expenditure data for family types I through V were collected in all communities covered in the Study of Consumer Purchases.[36] In addition, expenditure schedules for family type VII were collected in all Southern rural units, for white families in all North Central units used in the present report, and for Negro families in Atlanta, Ga. It was necessary, therefore, to estimate patterns for family type VII in those analysis units where data were not available. As has been pointed out previously, estimates of family type V were also necessary for rural units, since the data for this family type had been merged in the available tabulations with data for family type IV.

The basic assumption involved in estimating the patterns for family type VII was that the relationships between the spending habits of family types V and VII did not vary greatly from one region to another. Therefore, the relationships found to exist between these two family types in the communities in the North Central region were utilized in building up estimates for family type VII in the other regions.

Urban Units.—For four qualitative groups of families—i. e., wage-earning families and families in all other occupational groups in the Columbus, Ohio, sample and in the middle-sized city sample in the North Central region—regression curves were fitted to the expenditure data for each category of disbursement for family type V and family type VII separately. Smoothed values for each category were computed from these curves at the midpoint of each income interval.

The smoothed values, based on the Columbus curve for family type V, were subtracted from the corresponding smoothed values for family type VII.[37] The differences obtained were then added to the actual figures for family type V derived from the data for large-city families in each of the other regions, to obtain the average disbursements for family type VII in the two occupational groups in each region.[38] The same method was used to derive estimated average disbursements for family type VII in middle-sized cities in all regions on the basis of the regression curves fitted to the data for middle-sized cities in the North Central region.

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[35] See Brady, Dorothy S., "Variations in Family Living Expenditures" *Journal of the American Statistical Association*, vol. 33, June 1938, pp. 385–389.

[36] For description of the seven family types included in the expenditure sample, see p. 124. Schedules for family type VI, not used in the present report, were collected in the same units as were schedules for family type VII.

Adjustments in these estimated values were occasionally necessary when negative figures were obtained. Such adjustments were made by using the ratio instead of the difference method. This method consisted in obtaining the ratio between the estimated expenditures of family type VII and family type V in the "key" unit (Columbus), and multiplying the observed expenditure for family type V in the corresponding cell by this ratio. The difference in the sums of the categories as obtained by the two methods was distributed among the categories in proportion to their relative magnitudes.[39] Adjustments of this nature were necessary chiefly for the lower income levels and for the category "other items."

Rural Units.—In the case of rural units, separate sample data for each of the seven family-type groups were available only in North Central villages and in the Pennsylvania and Ohio farm unit. In the other rural analysis units the tabulations presented averages for family type II pooled with family type III, and for family type IV pooled with family type V. It was necessary to estimate separate averages for family type V to represent the spending patterns of family types VI and VIII,[40] and for family type VII to represent the pattern for families of seven or more persons.

On the basis of the relationships found to exist between the smoothed patterns for the pooled family types IV and V and for family type V in the North Central village unit, estimates of the values for family type V for village units in the other regions were obtained.[41] The "difference" method was again used, except in cases where adjustments were necessary to take care of negative values. Patterns for family type V in all farm units were estimated in the same manner, except that the relationships shown in the Pennsylvania and Ohio farm unit were used as a base.

The same general method was followed for estimating family type VII in those few units where data for family types VI and VII had been pooled in the tabulating process. Such estimates were necessary for the Southern village units and for the four Southern farm units (white and Negro operators and sharecroppers).

For village and farm units in the New England, Mountain and Plains, and Pacific regions, family type VII was estimated by adding to the estimated values of family type V in each region, the appropriate differences between the smoothed values for family types V and VII in North Central villages and in the Pennsylvania and Ohio farm unit. Adjustments for negative items were again necessary and were made in the same way as described above.

Income Levels Under $500

With few exceptions, average expenditure data for families with incomes of $0–$250 were available for all village and farm units. In most of the urban units, on the other hand, the Study of Consumer Purchases did not provide data for families having incomes of less than $500. It was necessary, therefore, to estimate the average spending patterns for families at these low income levels.

Regression curves were unsatisfactory as a basis for estimates in this low income range, since negative values would frequently have been obtained. Moreover, examination of the data for the low income ranges, where they were available, indicated that expenditures at income level $0–$250 not only did not fall below the expenditures at income level $250–$500, but tended to be as high and sometimes even higher than those at the $500–$750 level. Negative savings consequently tended to be correspondingly greater for families with the lower incomes.

The method adopted, therefore, was to use as the pattern of spending of families at income levels $0–$250 and $250–$500, the average disbursements, exclusive of savings, of wage-earning families with incomes between $500 and $750. To derive the estimate of average savings for the income level $250–$500, the sum of $250 was subtracted from the average savings figure of families at income level $500–$750. Similarly, in order to obtain an estimate of savings for families with incomes ranging from $0 to $250, the sum of $500 was subtracted from the average savings figure of families at income level $500–$750. This same procedure was followed in the few instances where it was necessary to estimate patterns for low-income families in the village and farm units.

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[37] Values were not computed for income levels above $7,500 for this purpose. For such levels—$7,500–$10,000, $10,000–$15,000, $15,000–$20,000, and $20,000–$25,000—the differences at the level $5,000–$7,500 were used. A regression curve could, of course, have been fitted to differences between the observed values for family types V and VII with the same result (for curves linear in the parameters). The curves for the separate family types were needed, however, for the income level extrapolations described below.

[38] Patterns were needed for family type VII for Negro families in North Central metropolises and large cities, since no data for this family type were collected in the New York City and Columbus, Ohio, samples. The method of estimating average disbursements for these groups was similar to that described above; the estimates were based on the data collected for white families in Columbus. The procedure was somewhat more complicated in the case of the estimates for family type VII Negro families in the non-wage-earner group in Columbus, Ohio. This was so because the sample for this group was too small to provide adequate expenditure patterns. It was therefore necessary to derive estimates for family type V Negro families in this occupational group, before estimates for family type VII could be obtained. This was done by adding to the averages for the pooled group of family types II, III, and IV in the Columbus Negro sample the difference between the smoothed values obtained for family type V and for the pooled group of family types II, III, and IV in the Columbus white sample.

[39] When the difference amounted to only 2 percent or less, no adjustments were made.

[40] For the methods used to combine patterns of the several family-type groups to obtain the spending pattern of 3- to 6-person families, see pp. 124–125.

[41] It was decided that this procedure could be used since the ratios of the frequencies of family types IV and V in the various regions did not appear to differ greatly.

It was believed that these estimates of the spending patterns of families at the extremely low income levels provided an adequate basis for estimating national aggregate disbursements for the various classes of goods and services in 1935–36. It was not felt, however, that enough information was available concerning differences in the spending habits of families at these two income levels—$0–$250 and $250–$500—to warrant presentation of two separate sets of averages. Hence average expenditures are presented only for the combined income level under $500. The combination was made on the basis of the total number of families in each component group at these levels in 1935–36.

Income Levels Between $500 and $20,000

Sample data were directly available for most of the qualitative groups within the income range from about $500 to $5,000. Above $5,000, gaps in the sample data appeared more frequently. In extrapolating patterns for some of the finer qualitative groups within the income range $500 to $20,000, the same assumption made in estimating family-type patterns was again adopted—namely, that relationships found to exist in the North Central units could be considered valid for the corresponding qualitative groups in other regions. The method followed for each qualitative group was to add to the average disbursements for the last income level available from the sample data,[42] the differences between the computed or smoothed values for that level and for the next highest income level in the corresponding qualitative group in the North Central region.[43]

For example, it was necessary to estimate the average expenditures at income level $15,000–$20,000 of families belonging in the non-wage-earner occupational group and in the family type V group in Portland, Oreg. First, the smoothed values for each category at the midpoint of the income levels $10,000–$15,000 and $15,000–$20,000 were computed from the regression equation fitted to the data for white families in this occupational and family-type group in Columbus, Ohio. The smoothed values for the lower income level were then subtracted from values for the higher income level. The differences were added to the average expenditure figures for the various categories observed at the $10,000–$15,000 income level for this occupational and family-type group in Portland, Oreg. The new averages were assumed to represent the average disbursements at income level $15,000–$20,000.

The "key" units in the North Central region which were used as a base for estimating data for empty cells in regions other than the North Central are summarized by occupational and family-type groups, as follows:

Key units	Communities and income levels for which extrapolations were made on basis of key units
METROPOLISES AND LARGE CITIES	
Occupations 1–5 and 6	
Family type I: Chicago Family type II–IV: Columbus (white). Family type V: Columbus (white). Family type VII: Chicago.	Providence, New York (Negro), Atlanta, Denver, Portland: all necessary income levels. Middle-sized cities in other than North Central region: all necessary income levels above $7,500.
MIDDLE-SIZED CITIES	
Occupations 1–5 and 6	
Family types I, II–IV, V, VII: Springfield, Ill., Muncie, Ind., and New Castle, Pa.	Middle-sized cities in other than North Central region: all necessary income levels below $7,500.
VILLAGES	
Occupations 1–6	
Family types I, IV–V, VII: North Central villages.	Village units in other than North Central region: all necessary income levels.
Farm units	
Family types I, IV–V, VII: Pennsylvania-Ohio farms.	All other farm units: all necessary income levels

Explanations of certain irregularities appearing in the above tabulation may be mentioned.[44] Thus, the Chicago expenditure data, and not the data from Columbus, Ohio, were used as a base for estimating data for empty income levels for family type I and family type VII in large cities. This was done because the Chicago sample data included a larger number of such families at the higher income levels. The regression curves fitted to the Chicago data for these groups were consequently considered more reliable as a basis for extrapolation.

Similarly, it was found that for income levels above $7,500 the regression curves based on the data for North Central middle-sized cities were not satisfactory as a basis for extrapolating high income values for middle-sized cities in other regions. The curves based on data for these cities reached a maximum in the case of several categories, including food, at or before the income level $5,000–$7,500. That is, as income increased the values as computed from the curves decreased. It was decided that the Chicago-Columbus values provided a more reliable base for extrapolating values for high income families in the middle-sized cities in other regions, and they were therefore used for this purpose.

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[42] Only averages based upon expenditure data from at least three families were used for income extrapolation purposes.

[43] For description of the regression equation fitted to the data to obtain smoothed values, see p. 133.

[44] It may be noted that in the income level extrapolation for those family types or occupational groups which were combined by random sample weights (see above pp. 123–125) no attempt was made to estimate averages for a qualitative group which would have been given a weight of 20 percent or less. Hence no income level extrapolations for the family type II and III group in the village and farm units were necessary.

In completing the patterns for high income levels for the North Central middle-sized cities, the values computed from the regression curve were used only after certain adjustments had been made. These involved substituting the maximum figure for a given category at all income levels above that at which a maximum had been indicated.[45] The difference between the substituted and the original figures for the several categories at each income level was distributed among the categories for which no substitution was necessary in proportion to their relative magnitude. Thus no change was made in the average income of the income class in question.

A few similar adjustments were made in the smoothed expenditure values calculated for the highest income levels in the rural key units—North Central villages and the Pennsylvania and Ohio farm unit These adjusted values were used as a basis for income extrapolations for all other village and farm units. Such adjustments were less extensive than those necessary for the patterns for the North Central middle-sized cities and it is believed that the values provided a fairly satisfactory basis for extrapolation. The procedure used, however, may have tended to underestimate somewhat certain categories such as food, housing, and tobacco, and to overestimate certain others, such as automobile, savings, and perhaps clothing.

For all units in the North Central region where it was necessary to estimate data for missing income levels, use was made of computed values from the regression curves fitted to the data in each of the qualitative groups.

Income Levels Above $20,000

The problem of estimating an average pattern of spending for families with incomes above $20,000 was particularly difficult. Numerous problems are inevitably encountered in estimates relating to an open, or "and over" interval where the top of the range is not known. Furthermore, in this case, the number of sampled families upon which such an estimate could be based was very small indeed. Actual expenditure data for only 14 families, 11 of whom fell approximately within the $20,000–$25,000 income range, were available from the Study of Consumer Purchases.[46]

Information on average savings of families with incomes of $20,000 and over was particularly important for purposes of estimating aggregate savings. The percentage of income saved at the higher income levels is, of course, much greater than at the low levels. It follows that the percent of aggregate family savings coming from families with incomes of $20,000 and over is much greater than is the corresponding percent of aggregate family expenditures for categories of current consumption. The same is true to only a somewhat lesser extent with respect to the category of "gifts and direct personal taxes." In selecting methods for estimating the spending pattern for families with incomes of $20,000 or more, therefore, particular study was given to the estimates of average savings, and of average gifts and personal taxes.

Average Savings.—In the first place, estimates of average savings were obtained for the income level $20,000–$25,000 for each of the five regions. These estimates were based upon averages derived at this income level for each of the three family-size groups within each of the four or five types of community in each region.

Above the $25,000 point, however, estimates of savings for each of these groups could not be made satisfactorily by the methods described above. Furthermore, population weights could not be obtained for each of these qualitative groups for the separate income intervals above $25,000. Weights for these very high income levels were available only for all families within each of the five geographic regions. Accordingly, only five estimates of average savings at each income level above $25,000 were made—each representing all families in a given geographic region. Such estimates were prepared for the following eight income classes: $25,000–$30,000, $30,000–$40,000, $40,000–$50,000, $50,000–$100,000, $100,000–$250,000, $250,000–$500,000, $500,000–$1,000,000, and $1,000,000 and over.

In making these estimates, two sorts of information were utilized—first, evidence as to the shape of the "savings-income" curve at these high income levels based upon data from several North Central units; and second, the average "level" of savings of families with incomes of $20,000–$25,000 in each of the regions.

An average regression curve of savings on income was obtained by combining the regression curves for the following three qualitative groups: Chicago, family types II through IV, occupations other than wage earner; Chicago, family type V, occupations other than wage earner; Columbus, family type V, occupations other than wage earner.[47] These three groups were selected because the three families with the highest incomes—approximately $40,000, $60,000, and $100,000—appeared in the sample for these units. Hence, the curves utilizing the information concerning the savings of these families could best indicate for the range of incomes above $25,000 the manner in which average savings tend to increase as income increases. Average savings figures at the average income point within each of the eight income classes were computed from the single "savings on income" regression curve for each region.[48]

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[45] The average expenditure value at the midpoint of the income level having the maximum expenditure was used, rather than the true maximum value, which could be determined only on the basis of further calculation—i. e., by computing $a-\frac{c^2}{4b}$, which gives the maximum expenditure and occurs at an income equal to $\frac{c^2}{4b^2}$.

[46] For distribution of sample expenditure schedules by income level, see table 1B, p. 122.

[47] Simple averages were obtained of the "a," the "b" and the "c" values of the three curves having the form $y=a+bx+c\sqrt{x}$.

Adjustments in these average savings figures were then made to take into account differences in the general level of savings in the various regions. For each region the difference was computed between (a) average savings at the income level $20,000–$25,000 as derived from the regression curve based on the Chicago and Columbus data, and (b) average savings at the same income level, as obtained by weighting the patterns for the three family-size groups in each type of community within each region—these average patterns having been extrapolated where necessary by the methods previously described. The difference obtained for each region was added algebraically to the average savings figures at the several income levels, as previously computed from the regression curve.

The estimates of average savings at the nine income levels above $20,000, thus obtained for each region, were multiplied by the total number of families in the region at the different income levels. The resulting aggregates were summed and the result divided by the total number of families with incomes of $20,000 or more. Estimates of average savings in the income class $20,000 and over were thus obtained for families in each region, and for all families in the Nation.

The margin of error in the estimate obtained in this fashion was doubtless high. In order to judge the range of error, estimates of maximum and minimum savings for families with incomes above $20,000 were obtained in the following manner. It was first assumed that as income increases beyond $25,000, families continue to spend the same amounts for the categories of current consumption and for gifts and personal taxes as do families with incomes between $20,000 and $25,000. The entire increase in income is thus assumed to be saved. This is, of course, an extreme assumption since families certainly increase their income tax payments, and doubtless increase their expenditures, as income rises. The assumption, therefore, provides what may be considered a maximum estimate of family savings.

On the other hand, the alternative assumption was made that families having incomes above $25,000 do not increase the percentage of their income allocated to savings beyond the percent saved by families with incomes between $20,000 and $25,000. This again is an extreme assumption. It probably provides a minimum estimate of savings for the entire group of families with incomes above $20,000, in spite of the fact that the percentage of income saved may fail to increase at the very high income levels or may actually decrease as income taxes absorb increasingly larger shares of the family income. Minimum and maximum estimates were derived by these procedures for each of the five geographic regions and the results summed to form the minimum and maximum savings estimates of all families in the Nation with incomes of $20,000 and over.

It may be noted that the actual estimate of the savings of families in these income groups, obtained by the extrapolation methods described above, falls within these minimum and maximum ranges for each of the five regions. It seemed reasonable, therefore, to use the extrapolated figure without any adjustment.

The fact that each of the regional estimates, as well as the national estimate, fell much closer to the minimum than to the maximum estimate might suggest that the aggregate savings figure presented in this report is more likely to be an underestimate rather than an overestimate. On the other hand, the assumption involved in obtaining the estimate for the maximum amount—namely, that families with incomes above $25,000 increase neither their expenditures for current consumption nor their total outlay for gifts and direct personal taxes beyond the amounts spent by families at the $20,000–$25,000 level—would seem to be much more extreme than the assumption involved in obtaining the minimum estimate. Hence it seems reasonable to find the extrapolated estimate of savings nearer the minimum than the maximum estimate.

Average Gifts and Personal Taxes.—A procedure very similar to that used for family savings was adopted in estimating the average amount transferred as gifts and personal taxes by families with incomes of $20,000 or more. However, an important modification was introduced in this estimate, involving the use of information provided by the United States Treasury Department on effective Federal personal income tax rates.[49]

Because of differences in the coverage of income as defined in the Treasury figures and in the present report, it was not possible to use the tax rates shown in *Statistics of Income* to indicate the percentage of income allocated to direct personal taxes at various income levels. However, in the absence of other information on personal taxes and gifts at the high income levels, it seemed that the relative increases in the rates from one income level to another could be applied to "step-up" the estimated percentage of income allocated to the category "gifts and personal taxes" at successive income levels beyond the range of observations provided by the sample data.[50]

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[48] The average at each income level differed somewhat for the several regions. For an explanation of the methods of estimating such average incomes for each region, see *Consumer Incomes in the United States*, pp. 80–87.

[49] See *Statistics of Income for 1935*, United States Treasury Department, Bureau of Internal Revenue, pp. 4–5.

Accordingly, the average gifts and personal tax figure was computed for each region at the $50,000–$100,000 level on the basis of the regression curve,[51] and was expressed in terms of percentage of income allocated to this category of disbursement. To obtain the gifts and personal tax figure for income class $100,000–$250,000, the percent derived for the $50,000–$100,000 level was increased in the same proportion as the effective personal income tax rate increased between these two income levels. The percentage thus estimated for the $100,000–$250,000 level was "stepped up" in the same manner to obtain the estimate for income level $250,000–$500,000, and so on to the highest class, $1,000,000 and over.

The estimated percentages were applied to the aggregate income at each of the high income levels to determine aggregate gifts and personal taxes at that level for each region. The aggregate payments for all levels above $20,000 were then summed, by region and for all regions combined, to yield estimates of the total amounts paid out for gifts and personal taxes by families with incomes above $20,000. Division of the several aggregates by the appropriate number of families resulted in estimates of average gifts and personal taxes for each region and for all families in the Nation with incomes of $20,000 or more.

Estimates of the average amounts transferred as direct personal taxes, and the amounts contributed to church, to charity organizations, and to persons, by families at the various income levels up to $10,000 were made in essentially the same way as were the estimates for the main categories of consumption. Basic data from the Study of Consumer Purchases were combined, extrapolated and weighted by procedures similar to those described above.

Some minor modifications in procedures were necessary, however, because the material for these subcategories had been tabulated somewhat differently, and because data for more units could be utilized.[52] Because of the differences in sample data and procedures, some adjustments were necessary in order that the sum of the separate tax and gift estimates at each income level should equal the estimate of total gifts and direct personal taxes. This was done by adjusting the estimates for the subcategories for each qualitative group of families so that they totalled to the estimated figure for the main category. Differences in the two estimates were distributed among the several subcategories, in proportion to their relative magnitudes.

For income levels above $10,000, only very approximate estimates of personal taxes and various kinds of gifts could be made, since the basic data were available only for a $10,000 and over income class. Free-hand extrapolations for personal taxes were made for the income levels $10,000–$15,000, $15,000–$20,000 and $20,000 and over. This was done on the basis of a curve showing the percentage of total gifts and personal taxes comprising the subcategory of personal taxes. These extrapolated percentages were applied to the average gifts and personal tax figure previously estimated for each of these three income levels.

Since personal income taxes comprise the bulk of the personal tax payments, these estimates of average personal taxes paid by families at the higher income levels could be roughly checked by comparing them with data on Federal personal income taxes published by the United States Treasury Department. As has been indicated above, direct comparisons are necessarily faulty since the basis of income classification in the income tax data and in this report are quite different. For purposes of a rough check, however, the figures for average personal taxes paid at each income level as given in the present report and the income tax figures in *Statistics of Income for 1935* were compared. While the latter figures appeared distinctly larger, the apparent disparity at each income level became smaller as successive approximate adjustments were made to translate the net income classes in *Statistics of Income* into gross income classes by adding: first, those types of deductions that were included in income in the present report; second, income from tax-exempt securities and imputed income from owned homes; and third, the additional income not accounted for in the income tax returns, because of assumed understatement and nonreporting of income.

An example of the type of check made between the tax rates shown in *Statistics of Income* and the figures on percentage of income allocated to direct personal taxes shown in the present report is given below. *Statistics of Income for 1935* (see p. 74) gives 31,477 individual returns with incomes between $15,000 and $20,000, an aggregate income for this group of $541 million and aggregate Federal income taxes of $33 million. Average taxes for this group amounted to $1,056 and the effective tax rate reported was 6.14 percent. In order to compare the Federal figures with those shown in the present report, it is necessary to translate net income, as defined by the U. S. Treasury Dept. in reporting these figures, to net income as defined in the present study.[53] The following steps were therefore taken.

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[50] There are, of course, recognized limitations to this procedure, which implicitly assumes that average outlays for gifts and for all personal taxes increase at the same rate as do Federal income taxes. Actually, State income tax rates are not as graduated as Federal income tax rates, while poll taxes and personal property taxes are usually not graduated at all. Nevertheless, the procedure adopted seemed adequate, since these taxes constitute a relatively small portion of total gifts and taxes included in the category.

[51] This curve represented a simple average of the three regression curves: Chicago, nonwage-earner occupations, family types II–IV, and family type V, and Columbus (white), nonwage-earner occupations, family type V.

[52] See above, p. 123. A more detailed description of these modified procedures will be given in a forthcoming report.

1. It was necessary to add to the Treasury figures the value of certain types of income that had been subtracted for tax purposes as items of deduction—i. e., net capital losses, contributions, taxes paid, interest paid, and "other deductions", and to subtract the value of net capital gains reported on the returns.

2. It was also necessary to add to the Treasury figures the value of interest received from securities that were exempt from taxation and not included in gross income according to the Revenue Act of 1934. The average income of the income class $15,000 to $20,000 was raised as a result of this and the preceding step from $17,200, as reported in *Statistics of Income*, to $19,490. It was further raised to $20,044 by adding the average value of nonmoney income, which has been included as income in the present estimates but not in income-tax returns.

3. A further correction was made for the understatement of certain types of income by families filing returns. It has been assumed here, as in the preceding report,[53] that such understatement amounted to 15 percent of the aggregate income at this income level and, accordingly, the average income of the group was raised from $20,044 to $23,050.

4. Average Federal personal income taxes for the group with incomes between $15,000 and $20,000, given in *Statistics of Income* as $1,056, amounted to 4.58 percent of the adjusted net income figure, as compared with the 6.14 percent reported as the effective tax rate in *Statistics of Income*.

The percentage of income estimated in the present report (see table 27A) as having been allocated to direct personal taxes by families with incomes between $15,000 and $20,000 is 5.1. A direct comparison, however, should not be made between this figure and the 4.58 percent derived above. The former figure includes all of the direct taxes separately reported in the Study of Consumer Purchases—State income taxes, poll taxes, and certain minor personal property taxes, as well as Federal income taxes. On the other hand, the latter figure is somewhat too high in relation to the tax estimates in the present report, because of the failure of some families to file income-tax returns and because of the exemption of certain groups, such as State and municipal employees, from the Federal income tax. The relative extent to which each of these factors affected the comparison, however, could not be estimated.

As a result of this rough type of check it appeared that the present estimates of average direct personal taxes paid at the various income levels are in reasonably close agreement with the averages shown by the Federal income tax statistics.

A further check on the estimates for personal taxes was made in terms of the *aggregate* personal tax figure. As has been indicated above,[54] this was done by comparing the estimate of aggregate direct personal taxes in the present report with an "outside" aggregate derived by combining data from Federal income tax statistics with estimates of State income taxes, poll taxes, and personal property taxes.

Collections of Federal individual income taxes in the fiscal year ending June 30, 1936, amounted to $674 million.[55] Since the Federal taxes covered in the present tax estimates do not include payments of back taxes, and do include taxes due in the fiscal year, even though the taxpayer was delinquent, the collections figure should be adjusted to account for this factor. Unfortunately, information is not available on the amount of delinquent taxes within this fiscal period. In adjusting the collections figure, therefore, it was necessary to assume that all back taxes collected in the fiscal period 1936–37 applied to the previous fiscal year. Back taxes collected in 1935–36 amounted to $85 million and those collected in 1936–37 to $96 million.[56] The adjusted total for Federal collections therefore amounted to $685 million.

This figure, however, is presumably higher than the total of Federal personal income taxes included in the present tax estimates since the collections figure includes payments made by estates and trusts, fines and penalties on delinquent payments, as well as too large an amount of back taxes.

Furthermore, the present estimate, based on the Study of Consumer Purchases, does not refer strictly to the fiscal period covered by the collections figure. The schedules taken in the sample covered varying 12-month periods during 1935 and 1936. Those referring to the calendar year ending in December 1935 included some payments that were made in the first two quarters of 1935 and those for the calendar year 1936 included some payments made in the last two quarters of 1936. It appeared, therefore, that a second estimate, obtained by weighting aggregate tax liabilities on 1934 and 1935 incomes in accordance with the distribution of the sample cases by schedule year, might more nearly approximate aggregate Federal income taxes included in the tax figure in the present report.

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[53] For a full description of the several types of adjustment of the income tax data needed in order to make them comparable to the definition of net income used in the present report, see *Consumer Incomes in the United States*, pp. 80–87.

[54] See pp. 57–58.

[55] U. S. Treasury Department, *Annual Report of the Commissioner of Internal Revenue*, 1937, p. 1.

[56] Information on back individual income tax payments supplied by the Accounts and Collections Unit of the Bureau of Internal Revenue, U. S. Treasury Dept.

Aggregate Federal income-tax liabilities reported on the individual returns for 1934 and for 1935 incomes were available from *Statistics of Income* for 1934 and 1935.[57] They amounted to $511 million and $657 million, respectively. The weight given to each of these figures was determined by the relative extent to which the data from the Study of Consumer Purchases included payments on the 1934 and the 1935 incomes.

As indicated above, personal taxes covered by the Study of Consumer Purchases were those payable in the schedule year. Hence, those family schedules covering the calendar year 1935 included Federal income taxes payable during that year on 1934 incomes. Schedules covering the year April 30, 1935, through March 31, 1936, on the other hand, included three payments on the family income for 1934 and one (the March payment) on the 1935 income if taxes were paid in installments. In cases where the tax was paid as a lump sum, however, these schedules would have included only the tax on the 1935 income paid in March 1936.

The following procedure was therefore followed:

First, the percentage of total schedules falling in each of five fiscal periods was determined. These periods, set up to include the various dates on which income-tax payments fell due, were as follows: (1) the schedule years ending in 1935 and up through February 1936, (2) the schedule years ending from March through May 1936, (3) those ending from June through August 1936, (4) those ending from September through November 1936, and (5) those ending in December 1936.

Second, the percentage for each fiscal period was multiplied by the probable proportion of payment made on the 1934 income by families whose schedules fell within that period. This proportion was calculated on the basis of U. S. Treasury figures on tax collections during the fiscal year 1935–36, which indicated that at least five-eighths of total payments of individual Federal income taxes were made in two or more installments.

Third, these various products were added together to determine the weight to be given to the 1934 income-tax data.

This procedure was followed separately for the schedules collected by the Bureau of Home Economics and the Bureau of Labor Statistics, and the results combined by weighting according to the proportions of the total consumer income attributable to the communities covered by the two Bureaus.

The weights, as thus determined, were 39 to be given to the tax figure for returns on 1935 income, and 61 to the tax figure for returns on 1934 income. From the weighted average of the two tax figures was subtracted an estimate of taxes for returns made on estates and trusts,[58] so that the final figure of $544 million for Federal personal income taxes for 1935–36 compares with the estimate presented in this report covering families and single individuals only.

Estimates of total State personal income taxes paid in 1935–36 were based on figures for collections in 1935 and in 1936.[59] Figures for these 2 years were used, rather than figures for 1934 and 1935, since they represented actual collections in 1935 and 1936 of taxes levied on 1934 and 1935 incomes. Since the fiscal year for the several States varied somewhat it was impossible to estimate, as in the case of the Federal tax, the proper weights to be given to the figures for the 2 years. Therefore, a simple average was taken and the resulting figure—$122 million—used as approximately equivalent to the State income taxes included in the present estimates.

Poll taxes for the period 1935–36 were estimated to have amounted to $16.6 million [60] and personal property taxes to $170 million.[61] Thus, the total of the several types of taxes included in direct personal taxes as defined in the present report was $853 million. As has already been pointed out, this figure checked fairly closely with the estimate of $889 million based on the sample data. It must be remembered, however, that the latter estimate is based on samples taken from communities in 25 States, which were not necessarily representative of all States with respect to legislation for personal income, poll, and personal property taxes. Consequently the correspondence between the tax estimate in the present report and the estimate based on outside sources is to some extent accidental. Nevertheless, Federal personal income taxes account for the bulk of the tax payments included in this category. Since the Federal law is uniform for all communities, the estimate for Federal income taxes based on the sample data should be fairly accurate.

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[57] Publications of U. S. Treasury Dept., Bureau of Internal Revenue.

[58] Estimated on the basis of the proportions of aggregate net income at each net income class reported by families, by single individuals, and by estates and trusts.

[59] For the 1935 figures, see U. S. Treasury Department, Division of Research and Statistics, *Collections from Selected State-Imposed Taxes, 1930–36*, 1936, pt. I, table A. For the 1936 figure see Twentieth Century Fund, Inc., *Facing the Tax Problem*, 1937, pp. 530–31.

[60] Tax Research Foundation, *Tax Systems of the World*, 7th edition, 1938, p. 391. The figures for the several states cover varying fiscal periods, but the year covered is approximately the same as that used in the present report.

[61] Twentieth Century Fund, Inc., *Studies in Current Tax Problems*, p. 18, footnote 14.

Average Consumption Expenditures.—Because the expenditures for the various categories of current consumption made by families at the high income levels form a relatively small part of aggregate expenditures for these categories, a fairly wide margin of error in the estimated average expenditures of the high income group would affect but slightly the accuracy of the national totals. More approximate methods, therefore, could be adopted in estimating average expenditures for these categories than were possible for savings, and for gifts and personal taxes.

The method used, in broad outline, involved three steps. First, estimates were made of the minimum percentage of income that families with incomes of $20,000 and over might be expected to spend for each of the categories of current consumption. Second, corresponding estimates of the maximum percentages that might be expected were likewise obtained. Third, percentages falling between the minimum and maximum points were selected and applied to the average income of this group of families to provide estimates of average amounts expended for each category. Such estimates were obtained for families in each region, and the resulting averages combined by means of population weights to obtain the average disbursements, for categories of current consumption of all families with incomes of $20,000 or more.

The "maximum" percentages were obtained by computing the percentages of income spent for the various categories by families at income level $20,000–$25,000. The pattern of spending of this group of families had been obtained for each region by the extrapolating and weighting methods previously described. The "minimum" percentages, on the other hand, were derived by expressing the amounts spent by families with incomes between $20,000 and $25,000 as percentages of the average income of all families having incomes above $20,000. Thus two extreme assumptions were made—first, that families with incomes above $25,000 do not decrease the percent of income expended for the various categories of current consumption beyond the percentage expended by families with incomes of $20,000–$25,000; second, that they do not increase the absolute amount expended on the various categories beyond the amount expended in that income class.[62]

The percentage of income allocated to the two categories of savings and gifts and personal taxes had already been obtained by methods previously described. The sum of the estimated percentages for these two categories was subtracted from 100.00 to yield the total percentage available for the categories of current consumption. From this total percentage figure the sum of the minimum estimates for these categories was subtracted; the resulting figure represented the amount to be added to the minimum estimates in order that the percentages for all categories should add to the necessary 100.00 percent. By expressing this figure as a percentage of the sum of the differences between the minimum and maximum estimates for the several categories, a ratio was obtained which was applied to the differences for each category. The resulting figures were added to the minimum percentage values to obtain the final estimates of the percentage of income expended for each of the categories of current consumption. As has previously been indicated, these percentages were applied to the average income at the income class $20,000 and over to obtain the final pattern of spending for this class.

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[62] This procedure involves the assumption that the percent of income expended for a good or service declines as income increases. A study of the behavior of the relationship between percentage expenditures and income indicated that this is probably true for most of the categories of consumption. In the cases of transportation other than auto and the imputed value of housing, evidence seemed to indicate that the percent of income allocated to these categories tends to increase rather than decrease as income increases. The minimum and maximum percentage estimates were therefore obtained in a different fashion for these two categories. The percentage of income expended at the level $20,000–$25,000 was assumed to be the "minimum"; the maximum values were obtained from the *b* value of the regression curves of expenditures on income.

SECTION 4. SPENDING PATTERNS OF SINGLE INDIVIDUALS

The 10 million "single" or unattached men and women comprised approximately eight percent of the 1935–36 population. They included the single person household—i. e., the census one-person family—lodgers and servants living with families, and single persons living in hotels, boarding and lodging houses, or in similar quasi-family groups. In addition, there were included those sons and daughters who were living with their families but who maintained a separate economic status, in that they did not pool their income with that of the family.

Residents in institutional groups, totalling 2 million persons, have not been included in the single individual grouping since the institutional agency rather than the individual resident is more properly considered as the spending unit. The expenditures of these institutional residents have been discussed in section 4, part II, of the text.

Nature of the Problem

Although special samples of single individuals were taken in several cities, the Study of Consumer Purchases did not provide a large representative body of expenditure data for this group similar to that for families. Expenditure data for single individuals from other studies were also scanty and the method of combining the available sample material was necessarily somewhat arbitrary. Differences in definition among the several sample studies, as well as variations in the period covered, introduced complications not encountered with the basic data for families. The patterns of spending of single men and women, therefore, are considerably less reliable than are the family patterns, and should be regarded as rough approximations of the way individuals at different income levels use their incomes.

The sparseness and heterogeneity of the expenditure data for single individuals made it impossible to prepare separate average patterns of spending for the various types of single individuals—e. g., one-person families, residents in hotels, servants, etc. Neither was it possible to prepare expenditure patterns for single men and women of different color groups or for single individuals living in different types of community and geographic regions, as was done for families. The available data permitted the construction of only two basic expenditure patterns—one for single men and the other for single women. In obtaining the aggregate disbursements of the ten million single individuals in the Nation, and the average patterns for all single men and women combined, it was necessary to assume that these two basic expenditure patterns were reasonably representative of all single men and of all single women, respectively.

The present section includes a description of the different sets of sample data that were used in constructing the two basic expenditure patterns. This is followed by a discussion of the combination of the sample data for various groups, and of the smoothing procedure that was used in order to eliminate the irregularities in the average patterns resulting from inadequate sample data. The derivation of estimates of aggregate disbursements made by single individuals in 1935–36 is discussed in section 5 of the appendix.

The Sample Data Used

The expenditure patterns for single individuals presented in this report were based on data from the following four studies:

1. The Study of Consumer Purchases in Chicago, Ill., and in Portland, Oreg., for 1935–36.
2. The Study of Money Disbursements of Wage Earners and Lower-Salaried Clerical Workers in Philadelphia, Pa., conducted by the United States Bureau of Labor Statistics in cooperation with the Pennsylvania Emergency Relief Board, for 1934–35.
3. The Study of the Cost of Living of Federal Employees in Washington, D. C., conducted by the United States Bureaus of Labor Statistics and of Home Economics, for 1932–33.
4. The Young Women's Christian Association Business Girls' Budget Project, including expenditure data from 120 cities, for 1931.

The Study of Consumer Purchases

Sample data on the consumption expenditures of single individuals were taken in two of the cities included in the Study of Consumer Purchases—Chicago, Ill., and Portland, Oreg. These samples of single individuals covered the same period, income levels, and categories of disbursement as the family data collected in that study.

From the sample taken in Chicago, 190 schedules for single men and 152 schedules for single women were used in the present estimates; from the Portland sample, 40 schedules for men and 63 for women were used. A relatively large number of the Chicago schedules represented single individuals living in hotels. Approximately 75 percent of the Portland schedules, on the other hand, were taken from single individuals who were keeping house, with approximately one-fourth of the schedules representing home owners. The data for the two cities included information from 52 single men and 35 single women in the wage-earning group, from 51 men and 62 women in the clerical group, and from 127 men and 118 women in the business and professional groups. All of the cases sampled were native-white nonrelief single individuals.

The expenditure data for single individuals were tabulated in the same 16 categories of disbursement used for the family data—savings, gifts and direct personal taxes, and 14 categories of current consumption, with a further subdivision of the housing category into money expense and imputed value.[1] The sample data were grouped into twenty income levels up to and including the income class $20,000 and over.[2] In the case of single men, however, no data were available for the lowest income level—under $250—and for single women none were available for the two classes below $500.

The categories of disbursement used in the Study of Consumer Purchases determined the classification of the sample data from the other three sources, since it was desirable that the spending patterns for single individuals be comparable to those for families, with which they were later combined. This meant that the classes of goods and services for which expenditure data were reported in the other studies were reclassified, where necessary, to conform as closely as possible with the definitions of the different categories of disbursement used in the Study of Consumer Purchases. The 20 income classes used in that Study also served as guides in grouping the sample data from the other studies.

The Study of Money Disbursements of Wage Earners and Lower-Salaried Clerical Workers

The study of average disbursements in Philadelphia for 1934–35 defined the group of single individuals from whom schedules were collected to include all persons not living in groups and not pooling incomes with members of groups. All of the single individual schedules used from this Study represented persons in the wage-earning and clerical occupational groups with incomes between $250 and $1,500. Of the 179 schedules used, 81 were for single men and 98 for single women. Approximately one-half of them were collected from white persons and one-half from Negroes.

The categories of disbursement used in the Philadelphia study were in close conformity with the definitions used in the Study of Consumer Purchases, with certain minor exceptions where items with the same name were defined slightly differently in the two studies. It was relatively simple, therefore, to regroup the items for which expenditures were reported so that they conformed almost exactly with the categories used in the Study of Consumer Purchases.

For example, it was found, in some cases where a lump sum had been paid for board and lodging, that a substantial amount of food expenditure was included in expenditures for housing. Supplementary tabulations furnished by the Bureau of Labor Statistics made it possible to correct for this discrepancy by subtracting an estimated amount from housing and adding it to the food category.

In a few instances, however, differences in definition were such as to make corrections impossible. The category of household operation, for example, was defined in the Philadelphia study to include certain items—interest on debts, safe deposit box expenses, legal or funeral expenses, and loss other than business loss—which were included under "other items" in the Study of Consumer Purchases. However, data obtained in the Study of the Cost of Living of Federal Employees in Washington, D. C., indicated that the magnitudes of such items were probably so small that the result of this difference in definition was negligible.

A second difficulty in classification arose in the case of vocational expense, which was listed as an expenditure item in the Philadelphia study. Such vocational expense—i. e., union dues, professional association dues, and outlays for technical literature—were not included in expenditures in the Consumer Purchases data, but were deducted as a business expense in calculating net income. No attempt was made to subtract this item from total expenditures reported in the Philadelphia sample, since such a procedure would have involved regrouping the sample cases by income level. It seemed satisfactory to include vocational expense in educational expenditures, even though this procedure differed from that used in the Study of Consumer Purchases.

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[1] Averages for gifts and direct personal taxes as separate categories were not obtained for single individuals, although aggregate disbursements for each of these categories were estimated. See p. 151.

[2] For the income range at each level, see p. 121.

The Study of the Cost of Living of Federal Employees in Washington, D. C.

The sample expenditure data for single individuals in Washington, D. C., in 1932–33 were collected as part of a larger study to investigate the cost of living in this city in relation to Federal salaries. The sample data from this study used in constructing the present estimates covered a selected group of individuals who were living alone and eating in boarding houses or restaurants. The scheduling was concentrated on individuals with incomes between $1,500 and $2,000, although some men and women with slightly lower or higher incomes were included.

Expenditure data for 116 individuals were used—47 single men and 69 single women. The sample was predominately one of white single individuals, with a very few schedules collected from Negroes. Most of the schedules were for men and women in the clerical group, with only seven single men and no single women representing the wage-earning group.

The classification of items of expenditure in the schedules in the Federal Employees study varied more from that used in the Study of Consumer Purchases than did the classification used in the Philadelphia Wage Earner study. On the other hand, the main groupings of items in the schedule were, in general, similar to those in the Consumer Purchases schedule, and major differences in definitions were cared for by rearranging the items included within the several categories.[3]

The expenditure data obtained from the study in Washington, D. C., applied to 1932–33, a period approximately three years earlier than that covered by the Study of Consumer Purchases. It was decided, therefore, to correct the average expenditure estimates for changes in the cost of living which had taken place during that period. Indexes prepared by the Bureau of Labor Statistics of the cost of goods purchased by Federal employees in Washington, D. C., were used for this purpose.[4] These indexes indicated that between March 1933 and January 1936 significant changes in the indexes of cost of goods purchased had occurred for only four categories—clothing and furnishings, for which the indexes rose substantially, and housing and personal care, for which the indexes fell.[5] Corrections in the estimated average expenditure at each income level were, therefore, made for only these four categories.

The Young Women's Christian Association Business Girls' Budget Project

The expenditure data from the study made by the Young Women's Christian Association were obtained from single women who volunteered to keep records of their disbursements over a three-months' period. All of the original budgets, as well as further detailed information obtained through supplementary questionnaires, were made available by the Association for use in constructing the present estimates.[6] It was possible, therefore, to examine carefully each of the budget schedules and to select for use in the present report only those which conformed fairly closely to the definitions used in the Study of Consumer Purchases. From a total of over 300 schedules thus examined, 125 were accepted as comparable. All of the 125 schedules represented women in the clerical group with incomes ranging from $500 to $2,250. They included cases from large and middle-sized cities in each of the five geographic regions, and for small cities in all regions except New England and the Pacific.[7]

The exclusion of schedules was made on the basis of several criteria. Since the women from whom expenditure data were collected were not required to meet any definite qualifications as "single individuals," many of the schedules were discarded on the grounds that they represented persons who were members of "economic families," as defined in the present study. Other schedules were eliminated because the information furnished was not sufficiently detailed to permit regrouping the data into categories similar to those used in the Study of Consumer Purchases. In addition, those schedules were discarded which indicated a discrepancy larger than 5 percent between the estimates of total disbursements and of total income.

The classification of expenditures used in the budgets showed no more than general similarity to the categories of disbursement used in the Study of Consumer Purchases, and it was therefore necessary to regroup many of the items. One difficult problem of reclassification arose in the case of "board, room, and lunches" which represented the categories of "food" and "housing." In some of the schedules, further detailed information made it possible to allocate the proper amounts to each of the categories. In most cases, however, it was necessary to rely on sample data from the Study of Consumer Purchases for single women in Chicago, which indicated the relative amounts spent for food and housing. From these data the proportionate expenditures for the two categories were obtained at each income level and applied to determine the portions of the "board, room, and lunches" item to be considered as food and as housing expenditure.

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[3] The definition of household operation used in the study for Washington, D. C., differed from the Study of Consumer Purchases in the same way as did the Philadelphia study definition (see above, p. 143). The detailed items on the individual schedules were examined carefully, however, and no entries whatsoever were found for the several items that had been classified differently in the various studies—interest on debts, safe deposit box expenses, legal and funeral expenses, and loss other than business loss. The same problem as to vocational expense arose in the Washington, D. C. Study as in the Philadelphia study (see above, p. 143). These expenses were again included in expenditures for education, although the Study of Consumer Purchases excluded them from income.

[4] See "Cost of Living of Federal Employees Living in Washington, D. C.," *Monthly Labor Review*, March 1937, pp. 794–796.

[5] In adjusting for changes in costs over the period, no correction was made for the effect of changes in relative prices on the quantity of various types of goods purchased. The assumption was arbitrarily made that a decrease in costs of goods within a given category resulted in a proportionate decrease in expenditures for that category with a corresponding increase in savings. Increases in costs were assumed to act in the opposite direction.

[6] Grateful acknowledgment is made to Miss Elsie D. Harper, secretary, Economics Laboratory Division, Young Women's Christian Association, for her cooperation in making available the original data from the survey.

[7] A few schedules for women living in metropolises were eliminated on the grounds that this type of community was already well represented by the data collected in Chicago and Philadelphia in other studies discussed above.

Certain of the classifications appeared to agree fairly well with the categories used in the Study of Consumer Purchases—e. g., clothing, personal care, medical care, other transportation, and gifts. Problems arose, however, in the case of the items "recreation and clubs" and "education," which were allocated to four categories—recreation, tobacco, education, and reading—on the basis of the proportions shown in the sample data for Chicago. Expenditures listed in the budgets as "emergency" were classified as household operation, since they usually represented contributions to the upkeep of the home. It is quite possible that in some instances they might more properly have been added to the amounts listed as gifts. An estimated figure for savings was derived for each schedule by adding the budget entries for "savings account and investment" and "loans repaid," and subtracting "loans received" and "transfers from savings."

Unlike the other studies used in the present report, the Y. W. C. A. budgets covered a 3-month rather than a 12-month period. Once the items had been regrouped to conform as closely as possible with the definitions of categories used in the Study of Consumer Purchases, all of the average expenditure figures were multiplied by four to obtain estimates for a 12-month period. The schedules had previously been classified into income ranges such that the multiplication by four would bring them into the usual $250 and $500 income intervals.

Because of the wide geographic distribution of the schedules in this study, it was not deemed feasible to correct the data for changes in the cost of living, as was done for the data from the Federal Employees study in Washington, D. C. Since the Business Girls' Budget Project referred to the year 1931, a certain bias may have been introduced by the failure to make such an adjustment.

Combining the Sample Data From the Various Studies

The sample expenditure data obtained from the four studies were pooled, by sex, at each income level to obtain the average patterns of spending of single men and of single women. The pooling was done, of course, only after the data had been regrouped or otherwise adjusted, as described in the preceding paragraphs.

The inadequacy of the available population weights precluded the more desirable procedure used for families—that is, to construct average patterns of spending at each income level for numerous component groups of single individuals, and to combine these patterns by weighting them in accordance with the relative frequencies of each group in the population. Only two frequency distributions by income level were available for single individuals in 1935–36—one for all single men, and the other for all single women—so that no information could be obtained as to the proportions of single persons at a given income level in the various occupational, color-nativity, type of community, or regional groupings.[8]

The smallness of the sample for single individuals also seemed to make it advisable to avoid further subclassifications than were essential. Implicit in the pooling procedure, however, were several assumptions of somewhat questionable validity. In the case of single persons with different types of living arrangement or in different occupational groupings, the pooling of the sample data implied one of two things either that these different groups were represented in the sample data in their proper proportions, or that the expenditure patterns of the various groups at any one income level were very similar. The same types of assumption were also involved, of course, in pooling the data for single persons living in different geographic regions and types of community, or belonging to different color groups.

Tests made on the basis of the Chicago sample data indicated that the expenditure patterns for residents in hotels did not differ as markedly from those for other types of single persons as had been expected. Previous tests for families had already indicated that the patterns of spending of the different occupational groups did not differ radically.[9] A comparison of the expenditure patterns obtained by two different methods: (1) by pooling the Chicago sample data for single persons in all occupational groups, and (2) by weighting these data for the wage-earning and for all other occupational groups,[10] indicated that the results did not differ appreciably.

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[8] Frequency distributions by income level were available for relief men and women separately from nonrelief men and women, but no further subdivisions were possible. See *Consumer Incomes in the United States*, pp. 67–70.

[9] Except that the patterns for the wage-earning group differed from those for the other occupational groups. See above, p. 123.

Such tests, however, are far from conclusive, and some error was doubtless introduced into the final estimates because of the faulty weighting of the component groups of single individuals resulting from the pooling of the sample data. It must be remembered, also, that all of the 865 cases for which sample expenditure data were used were from urban areas, and that most of them were from metropolises and large cities—i. e., all the sample cases in the first three studies discussed above and almost half of the sample in the fourth study. However, approximately 70 percent of the total number of single individuals in 1935–36 lived in urban areas, and 41 percent in metropolises and large cities.

The total number of sample cases upon which the expenditure patterns for single men and single women were based are presented by income level in table 1B.[11] According to occupational grouping, the 865 sample cases were distributed as follows: 127 men and 118 women in the business and professional group, 91 men and 256 women in the clerical group, and 140 men and 133 women in the wage-earning group.

Smoothing the Average Expenditure Patterns

Because of the heterogeneity of the sample data and the relatively small number of cases upon which the average expenditure patterns were based, it was inevitable that the patterns of spending for single men and women should show numerous irregularities. It was found desirable to smooth these estimated average expenditures in order to eliminate the irregularities, from one income level to another, and to present the smoothed rather than the raw averages as more nearly approximate to the 1935–36 situation.

The smoothing procedure, carried through separately for single men and single women, involved the use of regression equations fitted to the average expenditure figures for each category of disbursement. The equation that was used was the same as that employed for extrapolation purposes in the case of family expenditures—$y=a+bx+c\sqrt{x}$, where y equals the disbursement for any particular category and x equals the income.[12] Average expenditures at each income level were computed from this equation by giving x the value of the average income of single men and of single women at that level, as previously determined in the companion report, *Consumer Incomes in the United States*.[13]

Incomes Under $500

Patterns based on the values computed from the equation were not satisfactory for the lowest income level for single women and for the two lowest income levels for single men, since negative values appeared for a number of the categories of disbursement. The average disbursements made by single women with incomes below $250 were estimated by multiplying the average expenditure for each category in the class $250 to $500 by $\frac{\$250}{\$384}$, with $250 representing the lowest limit of the higher class, and $384 the average income within that class. This meant, in effect, that the curve for each category was extended as a straight line from the average income of the class $250–$500 to the origin, and the expenditure at the $250 point computed and used as the estimated expenditure for the income class under $250.[14]

The average disbursements for single men in the income class $250–$500 were estimated, in similar manner, by multiplying the average for each category in the class $500–750 by $\frac{\$500}{\$626}$. The average disbursements for the lowest class, under $250, were derived similarly. That is, the curve for each category was extended as a straight line from the average income of the class $500–$750 to the origin, and the expenditure at the points $500 and $250 computed from the curve. These averages were used as the estimated expenditures for the income levels $250–$500 and under $250, respectively.[14]

High Income Levels

For several of the categories of disbursement maximum points on the curves were found to occur within the observed range of incomes. Since it seemed highly improbable that average expenditures for such categories decreased as the size of income increased, it was deemed best to adjust the estimates at each income level above the point where a maximum occurred. Therefore, above the level at which a maximum was indicated, the figure for maximum average expenditure for the category, as determined from the curve, was substituted for the figure derived for each income level up through $20,000–$25,000. The difference between the sum of the substituted values and the sum of the lower amounts derived from the regression curves was distributed among those categories for which no substitution had been made, in proportion to their relative magnitudes.

The methods used in obtaining the average expenditure patterns of single men and single women at the income class $20,000 and over were similar to those used in deriving the family patterns for this income class.[15]

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[10] The weights used were the number of cases in each of these two occupational groups in the random income sample for single persons taken in Chicago in the Study of Consumer Purchases.

[11] See above, p. 122.

[12] For further discussion of this form of curve, see p. 133.

[13] See that report, p. 88.

[14] For a few categories, however, zeros were substituted where the estimated values were negative.

First, estimates of average savings for each sex in each of nine income classes above $20,000 were made on the basis of the regression curve for savings. These averages were multiplied by the total number of single men or women in these income classes in 1935–36,[16] and the resulting aggregates were summed to obtain aggregate savings for the class $20,000 and over. Average savings in this class were then derived by dividing the aggregate figure by the total number of single men or women with incomes of $20,000 or more. Estimates of minimum and maximum savings were made in the same way as for families.

Second, the average disbursements for gifts and personal taxes for the class $20,000 and over were computed on the basis of the estimated disbursement figures derived from the regression curve for gifts and personal taxes for the nine income classes above $20,000. These estimated values were then "stepped up" in accordance with data on effective tax rates, as were the family estimates for this category.[17] The adjusted averages were then weighted by the proportions of single men and women at each income level to obtain average gifts and personal taxes for the class $20,000 and over.

Third, average expenditures for each of the categories of current consumption at this highest income class were also estimated by methods similar to those used for families. Instead of deriving average expenditures for each of the nine income classes above $20,000 on the basis of the regression curves, as was done for savings and for gifts and personal taxes, a more approximate method was used for the single wide income class, $20,000 and over. The average expenditure made by single men or women in this income class for each category of current consumption was determined on the basis of maximum and minimum values estimated in the same manner as was described above for families.[18]

Patterns for All Single Individuals

The average expenditure patterns for single men and for single women, derived by the methods described above, are presented in tables 13A–18A in Appendix A. As these tables indicate, the patterns for single persons included the same main categories of disbursement that were used for families. An exception is to be noted in the case of the two subcategories of housing expenditures, money expense and imputed value, which have not been included in the tabular material for single individuals.[19] Since average values for these subcategories were not available from three of the four studies listed above,[20] the estimates for the various income levels were not considered sufficiently reliable to warrant presentation.

It will also be noted from the tables that the average expenditure patterns for single individuals do not include separate estimates for direct personal taxes and for gifts of various types such as were presented in the family patterns. Again, the sample data for single persons did not permit of a sufficiently reliable breakdown of the "gifts and personal taxes" category to justify presentation of separate averages for taxes and for gifts at each income level.

Average expenditure data for single men and single women were derived separately for each of 20 income levels.[21] However, the average expenditure patterns presented in the tables for single men and single women show the data for incomes up to $5,000 combined into 11 income classes comparable to those used for families. Expenditure data for the several income levels above $5,000 are included in the tables for all single individuals—tables 3 and 4 in the text, supplemented by tables 11A and 12A in Appendix A. This average pattern for all single individuals was derived by weighting the patterns for single men and single women according to the frequencies of the two groups at each income level in 1935–36.

These population weights were obtained, like those for families, from the companion report on consumer incomes.[22] The two frequency distributions presented in that report included, respectively, single men and single women living in all regions and types of community, and belonging to all color-nativity and occupational groups. Because of the lack of suitable data for relief individuals, it was necessary to make the assumption here, as was done for families, that single individuals who had received relief followed the same pattern of spending as did nonrelief single men and women at the same income level.

In the case of single individuals, no final adjustments were necessary to reconcile the estimated average patterns and aggregate disbursement figures with the estimates of average and aggregate incomes of single individuals presented in *Consumer Incomes in the United States*. As has already been indicated, such agreement was achieved in the smoothing procedure adopted for the single individual patterns. Average expenditure figures corresponding to the average income figures shown in the income report were calculated directly from the regression curve fitted for each category of disbursement.

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[15] For description of the methods used for families, see pp. 136–141.

[16] For description of population weights, see p. 145.

[17] See pp. 137–138.

[18] See p. 137.

[19] The two subcategories under food expenditures, money expense and imputed value, are not included in the tables presented. Since the sample data were entirely urban, they did not provide the information needed for making this subdivision.

[20] Available only from the data from the Study of Consumer Purchases.

[21] For the income range at each level, see p. 121.

[22] See *Consumer Incomes in the United States*, table 23B, p. 100.

SECTION 5. AGGREGATE DISBURSEMENTS OF FAMILIES AND SINGLE INDIVIDUALS

The present section includes a description of the methods of deriving the estimates of aggregate consumer disbursements presented in part II of the text. The aggregate disbursement figures for families and single individuals were derived independently and are discussed separately. The adjustment required to correct for the disparity between the estimate of aggregate family disbursements and that for total family income presented in the companion report on consumer incomes is described in detail. The procedures used in estimating disbursements of the deciles, quarters, and thirds of the Nation are also outlined.

Aggregate Disbursements of Families

Aggregate disbursements of families were obtained in the course of the weighting procedures for families described in section 3 of this appendix. As has been explained in that section, 99 expenditure patterns, by income level, were prepared for component groups of families and weighted by the appropriate nonrelief groups in the 1935–36 population.[1] By this procedure aggregate disbursements for the several categories were derived for the various nonrelief population groups at each income level. These disbursements were next summed for all groups of families and then for all income levels combined.

Similar methods were used for the relief group, for which 10 sets of patterns were prepared and 10 frequency distributions used as weights. The aggregate disbursements for the relief and nonrelief groups in each geographic region were then summed, and the resulting aggregates added together to obtain the national totals at each income level and for all income levels combined.

Estimates of aggregate family disbursements are presented in tables 24A–27A. It should be noted that the figures on percentages of income and of total expenditures allocated to the several categories at each income level (tables 1, 6A, 7A, and 10A) apply to the estimates of both aggregate and average disbursements, with only minor differences due to rounding.

Adjustment in Estimates of Aggregate Family Disbursements

The total outlay of each family sampled in the Study of Consumer Purchases was defined to include expenditures for all categories of current consumption as well as outlays for gifts and direct personal taxes, and for savings, whether positive or negative. The family outlays should therefore total exactly to the family's income. From this it naturally follows that aggregate outlays of all families in the Nation must be equal to aggregate family income.

The aggregate outlay of the 29,400,300 families in the United States in 1935–36, estimated by the methods described above, totalled $48,165 million. Aggregate family income in this year was estimated in the companion report, *Consumer Incomes in the United States*, to have been $47,679 million. The difference of $486 million in the estimates of total family income and total outlay amounted to only 1 percent of total family income. In view of the scope of the estimates, and the numerous possible sources of difference, the discrepancy is surprisingly small, and should instill considerable confidence in the findings of both studies.

Differences in the income and outlay figures were not confined to any particular component group of families, nor were they concentrated within any particular range of incomes. A comparison of total disbursements and total income for the various qualitative groups of families and for the several income levels indicated a fairly regular distribution of the disparity, except in a few instances noted in the following discussion.

The primary reason for this disparity is found in differences in the coverage of the sample data used in the income and in the expenditure studies. A portion of the discrepancy, however, must be attributed to differences in methodology in the two reports. Both types of differences are discussed in the following paragraphs.

Differences in Sample Data Used in Income and in Expenditure Studies

The major differences in the estimates of average incomes and average disbursements of various groups of families are to be accounted for by differences in the number and coverage of schedules included in the income and in the expenditure samples in the Study of Consumer Purchases. In addition, small discrepancies were allowed in the reports on income and expenditures made by the same family, as well as minor differences in the data for specific items of expense and income.

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[1] For a summary of the patterns and weights, see table 2B, pp. 125–126.

Differences in Sample Coverage.—As used in this report, average total disbursements at any income level are equal to the sum of the average expenditures for all of the various categories of disbursement. As has already been indicated, these averages for all families in the Nation were built up by weighting data on average expenditures at each income level as obtained from the "controlled" sample in the Study of Consumer Purchases.[2] The figure for average income at each income level was, on the other hand, that derived in the income study from the "random" sample data collected in the Study of Consumer Purchases.

As was explained in an earlier section, the "controlled" expenditure sample was selected from the "random" income sample on the basis of certain eligibility requirements and other controls designed to limit the types of families and the number of families of each type interviewed.[3]

The controls operated to reduce the number of expenditure schedules taken from native-white, husband-wife families (and from Negro families in Southern and certain North Central communities) far below the number of such schedules in the random sample. In addition, no attempt was made to include expenditure schedules for relief families or for families of other color-nativity and family-composition groups that had been included in the special income samples for ineligible families.[4] This was true of native-white "broken" and foreign-born white families in all of the communities in which income samples of these "ineligible" groups had been taken, and of Negro families in all communities except those in the South, and North Central large cities.

Furthermore, sample expenditure data for families living in small cities, and for white families in New York City were not utilized in constructing the present estimates of family expenditures, although such data were collected in the Study of Consumer Purchases. Sample data from these communities were utilized, on the other hand, in deriving the estimates of income.

All of the above factors operated to reduce the number of families in the expenditure sample at each income level below the number in the income sample. In all, approximately 274,000 schedules from the income sample were used in constructing the income distribution for all families, while approximately 42,000 schedules were used in building up the estimates of family expenditures. Average total disbursements, based on the smaller sample coverage, naturally differed from the estimated figure for average income within each income class, and aggregate disbursements for each qualitative group of families therefore differed from aggregate income.

Differences in Income and Outlay Estimates for the Same Families.—In addition to the discrepancy arising from differences in sample coverage, a second type of discrepancy occurred because the same family might report income and total disbursement figures that did not check exactly. As was pointed out in an earlier section, the data on incomes and disbursements of families interviewed in the Study of Consumer Purchases were obtained independently and entered on two separate schedules.[5] The income and expenditure schedules were later checked against each other and expenditure schedules showing a significant discrepancy were rejected.[6] Nevertheless, since differences of small magnitude were allowed, and since the family's estimates of average disbursements for the several categories could not be adjusted to sum exactly to its earlier estimate of income, differences in the final totals for all families were to be expected.

Differences in Data for Certain Items.—A third type of discrepancy arose because of minor variations in the reporting of certain items of income and expense on the income and on the expenditure schedules. All of the differences, however, related to relatively small items, and the resulting differences in the figures for average income and average total disbursements at each income level were therefore not very significant.

In estimating family expenditures, certain minor items of occupational expense were subtracted on the expenditure schedule which had not been deducted from total income as previously reported on the income schedule. The deductions had not been possible until detailed expenditure data had been obtained from the family. Such occupational expenses included automobile and other transportation expense chargeable to the business or to the farm, dues to unions and business associations, and expenditures for technical books and periodicals.

Income received in the form of home-produced food had been included, of course, on the income schedules for rural families, but the expenditure data for farm families made it possible to correct this figure by deducting the value of home-produced food served to farm help and boarders. In addition, money expense for food for farm help was deducted on the expenditure schedule, whereas it had not been possible to exclude it from total income on the earlier schedule.

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[2] For description of the sampling procedures used in the Study of Consumer Purchases, see pp. 104-107, and also article by Schoenberg, Erika H, and Parten, Mildren, "Methods and Problems of Sampling Presented by the Urban Study of Consumer Purchases," *Journal of American Statistical Association*, vol. 32, June 1937, pp. 311-322

[3] See pp. 106-107.

[4] For further explanation, see p. 106

[5] For description of the sampling procedures, see pp. 104-107.

[6] For further discussion of allowable discrepancy, see p. 108

In several other instances, detailed expenditure data made it possible to estimate certain expenses more accurately on the expenditure than on the income schedules. Thus, on the income schedule, the expense for boarders' food to be deducted from gross income from roomers and boarders was estimated on the basis of previous studies.[7] On the expenditure schedules, however, the deduction was computed on the basis of reported total food expense and the number of meals served to boarders.

In estimating the imputed income of nonfarm families from owned family homes, the ownership expenses deducted on the income schedule were also estimated on the basis of data collected in previous studies.[7] On the expenditure schedule, however, these expenses were reported by the family in its detailed list of disbursements, and the actual amount was deducted from the estimate of housing expense.

The housing figure given on the expenditure schedule was more accurate, also, in that it included two items not recorded on the income schedule. These items were reported rent received as gift (rent received as pay was included on both the income and expenditure schedules), and the reported difference between rental value and expense for owned vacation home.

Differences in Methodology in Income and in Expenditure Studies

A certain portion of the discrepancy between the national estimates of family incomes and family disbursements resulted from differences in the methods used in their construction. Such differences were dictated largely by the scope and classification of the sample data available for constructing the two sets of estimates.

Negative Income Families.—One minor variation in method was to be found in the treatment of negative income families. In the report on consumer incomes, a small number of nonrelief farm families were estimated to have sustained net losses for the year. Since no expenditure patterns were available for these families, it was assumed in the present report that they followed patterns of spending similar to those of families with positive incomes between $0 and $250. Thus, the estimated aggregate disbursements of the group with incomes under $250 exceeded the estimate of aggregate income for that group presented in the companion report on consumer incomes.

Estimated Expenditures for Other Groups.—A second difference in methodology occurred for certain groups of families for which expenditure data were estimated, as explained in section 3 of the appendix, whereas actual data on incomes had been collected.[8]

For example, estimated expenditure patterns were prepared for large families—e. g., family type VII—in a number of communities. Similarly, average expenditures for the several categories were estimated for certain other groups—notably the very high and the very low income families—for which no sample expenditure data were available. For these groups there were inevitably some differences in the estimates of average income and average disbursements.[9]

In the case of certain other groups of families excluded from the expenditure sample, the figures for average income and average disbursements at each level were derived by different methods. For example, the average incomes of foreign-born white families were obtained directly from the income sample, whereas their average disbursements were assumed to total to the same amount as did the expenditures of native-white families in the same qualitative group and income level.

Other Minor Differences.—Some difference in the estimates of aggregate income and of aggregate disbursements may have resulted from the necessary rounding of the average income and average expenditure figures used in building up the two national totals. In addition, slight differences in the population weights used in constructing the estimates of aggregate family income and disbursements may have introduced a minor discrepancy. Final adjustments in the population weights were made, in a few instances, after preliminary weights had been utilized in the early computations for the present report.

Correction for the Discrepancy

Because the estimate of aggregate family income was based on a considerably larger sample, covering a greater variety of family groups in the population, it was considered a better approximation to total family income and family outlay in 1935–36 than was the estimate of total family disbursements. Improvements in the reporting of certain items on the expenditure schedules were relatively minor and their effect could not readily be taken into account. It was decided, therefore, to correct the family disbursement figures so that they totaled exactly to the estimate of family income.

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[7] Study of Money Disbursements of Wage Earners and Lower-Salaried Clerical Workers, conducted by the United States Department of Labor, Bureau of Labor Statistics, 1934–36.

[8] See pp. 132–141.

[9] However, no difference occurred in the estimates of aggregate income and aggregate disbursements for the group $20,000 and over, since the aggregate income figure from the report on consumer incomes was used in deriving the average expenditures for this group.

The following correction procedure was used: The estimated aggregate income of all families—relief and nonrelief—at each income level, as given in the report on consumer incomes, was substituted for the aggregate disbursement figure derived by the weighting procedure outlined in the preceding section. The new aggregate figure at each income level was distributed among the several categories of disbursement in accordance with the percentage allocation of income shown at that income level. These percentage figures, presented in tables 1, 6A, and 10A, thus remained unchanged. The revised aggregates are those presented in appendix tables 24A, 25A, and 27A. These corrected figures were divided by the number of families at each income level to derive the final pattern of spending for families as shown in tables 1, 2, and 8A–10A.

Aggregate Disbursements of Single Individuals

The aggregate disbursements of single individuals were obtained in the process of weighting the patterns for single men and single women. As has been already indicated, no adjustment in the aggregate disbursement figures for the various categories was necessary, since they totalled exactly to the estimates of aggregate income presented in the companion report on consumer incomes.

The aggregate disbursements of all single individuals are presented in tables 28A–30A in the appendix. These tables include information for the same 16 main categories of disbursement as were presented for families. In the case of single individuals, however, data were not available from the urban sample for the subcategories of money expense and imputed value of food. All the food expenditures of this group have been included as money expense in combining the disbursement figures of single individuals with those for families. The error introduced by this assumption is doubtless very small, since it is probable that very few single individuals raise their own food.

For housing, separate estimates were prepared for money expense and imputed value, which were used in the all-consumer disbursement estimates. However, this breakdown for single individuals is highly tentative, since data for these subcategories were available from only one of the four sample studies utilized.

In order to obtain the estimate of total direct personal taxes paid by all consumers, it was necessary to estimate the portion of the aggregate disbursements made by single individuals for gifts and personal taxes that was allocated to personal taxes. Such estimates for single men and for single women were based on information provided by the sample data collected in the Consumer Purchases Study in Chicago, Ill. These estimated proportions were then applied against the aggregate figures for gifts and personal taxes of single men and single women at each income level to derive the amounts allocated to personal taxes and to gifts.

Aggregate Disbursements of All Consumer Units

Estimates of the aggregate disbursements of all consumer units were obtained by summing the disbursements of families and of single individuals. For reasons explained earlier, institutional residents were not included in these aggregate figures, but have been treated as a separate group.[10]

The summation process was first carried through for each category of disbursement at each income level. The resulting aggregate disbursements of all consumers, by income level, are presented in tables 8 and 31A. The grand total spent by the 39,458,300 consumer units in the Nation for each category of disbursement was obtained by summing the aggregate amounts spent at the various levels of income. These figures are presented in table 7.

Average Disbursements of All Consumer Units

The average disbursements of families and single individuals combined were derived by dividing aggregate disbursements at each income level by the number of consumer units at that level. This pattern of spending is presented in tables 19A and 20A in the appendix. The tables on percentage allocation of expenditures (tables 19A, 21A, and 22A) apply to both the average and aggregate disbursement tables, with minor differences due to rounding.

The average amounts spent by each consumer unit for the various categories are given in table 5, where the average disbursements per family, per single individual, and per consumer unit are compared. Per capita average disbursements of all consumers, also presented in table 5, were derived by dividing the total disbursements for the several categories by 126,024,000—the total population in 1935–36, exclusive of persons in institutions or quasi-institutional groups.

Disbursements of Each Third, Quarter, and Tenth of Nation

The aggregate disbursements of each third, quarter, and tenth of the Nation were derived by summing the aggregates spent by consumers in the appropriate income ranges. The average expenditures for each group were then obtained by a simple division process. In those instances where it was necessary to divide the aggregates for a given income interval, the aggregate outlay for each category of disbursement was divided according to the proportions by which the total income at that income level had been divided.

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[10] See p. 62.

For example, it had been determined in the report on consumer incomes that 9.99 percent of the aggregate income in income class $750–$1,000 belonged to families with incomes between $750 and $780, who were in the lowest third of the Nation, and the remainder to families in the middle third. The aggregate outlay for each of the categories of disbursement made by families in income level $750–$1,000 was therefore divided between the lowest and middle third in the above proportions. A similar procedure was followed in the division of aggregate disbursements made to the income class $1,250–$1,500, and to various other income classes in obtaining the estimated disbursements of the quarters and tenths of the Nation.

Per capita expenditures in each third of the Nation were derived after estimates had been made of the number of persons in each third. In estimating the number of such persons, two types of information were used: (1) Figures on the average size of all relief families and of nonrelief families in each of four family-size groups; (2) the number of single individuals, of relief families, and of nonrelief families in four size groups in each third of the Nation.[11] Since figures on the average size of family were not available for each third of the Nation, the assumption was made that the average size of relief families, and of nonrelief families in each of the four family-size groups, did not differ for the three thirds.

It is recognized, of course, that this procedure was arbitrary, but no data were available on the distribution of persons, as opposed to consumer units, by income level, nor was information readily available on variations in the average size of family at different income levels. The total numbers of persons in the lower, middle, and upper thirds were estimated at 38,058,182, 42,460,264, and 45,505,677, respectively.

Similar procedures were used in estimating the number of persons in the lower half of the Nation at 59,127,166, and the number in the upper half at 66,896,957

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[11] The figures for average size of family are presented in table 4 and those for the number of families in each third in table 3B, in the report *Consumer Incomes in the United States*, pp. 21, 95.

APPENDIX C

EFFECT OF SIZE AND DISTRIBUTION OF INCOME ON NATIONAL CONSUMPTION

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SECTION 1. THE PROBLEM AND THE METHOD OF APPROACH

The estimates presented in the preceding pages show how the American people spent their incomes in 1935–36, under the conditions existing in that particular year. This summary picture of the actual consumption of the Nation during a recent period is of distinct value in connection with many economic problems. But it would also be exceedingly useful to know what changes in consumption might be expected to develop under conditions significantly different from those of 1935–36.

The information on consumer expenditures obtained in the present study can obviously provide only a partial answer to this important question. For a satisfactory answer, it would be necessary to take account of a wide variety of factors influencing the Nation's consumption. We would need to consider the effect of changes not only in the size and distribution of national income, but also in the prices of different goods and services, in consumers' tastes and desires, in habits of saving, in the volume and incidence of taxes, and in many other economic and social conditions. We would need to allow for the rate of increase or decrease in individual incomes, for the effect of these shifts in income level on the way incomes are spent, and for the effect of previous changes in incomes on the demand for durable goods and other postponable items of expenditure. And we would need to make adjustments for trends in the size of the population, in its age composition, and in its geographic and occupational distribution.

Unfortunately, our present knowledge of the influence of most of these factors on consumer spending and saving is far too meager to serve as a basis for calculating potential changes in the Nation's consumption. The data on consumer expenditures used in the present study relate only to a single year, and the data available from other sources give little indication of how present spending habits at different income levels are likely to change with changes in consumer wants through time, with transitional shifts in income level, or with other economic developments. Much further research on the consumption aspects of the economy will be needed before we can prepare even roughly reliable estimates of the Nation's potential expenditures and savings under various possible future conditions.

It is possible, however, with the information now available, to gain some indication of the effect on national consumption of two of the factors mentioned above—the total volume of consumer income and its distribution among different groups of the population. By using the 1935–36 average patterns of consumer spending prepared in the present study, we can calculate the aggregate disbursements of the Nation under various arbitrary assumptions as to size and distribution of income, while assuming that all other conditions remain as they were in 1935–36. A series of such calculations is presented in this appendix.

Previous attempts to estimate the influence of changes in consumer purchasing power on the Nation's consumption expenditures have been very few in number. While many studies have been made of the demand for particular goods and services under different economic conditions, little attention has been given to the over-all picture of national consumption. The report on "Patterns of Resource Use" issued by the National Resources Committee represents the most recent approach to the problem.[1] Considering the economy as a whole, it analyzes the relationships shown in past years between such factors as the size of consumer income, the volume of consumption of particular goods and services, and the volume of production and employment. By this procedure it disentangles to greater or less degree the effect of trends of change in consumer wants and the combined effect of differences in the size of consumer income and in price relationships and other factors that tend to vary with consumer income. Thus it throws light on aspects of national consumption not covered by the present study. The report is mainly concerned, however, with the development and exposition of method, and does not attempt to present more than a partial and preliminary set of consumption estimates. The data used, moreover, do not permit consideration of consumer savings or of the separate effects of changes in the distribution of income.

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[1] *Patterns of Resource Use*, a technical report prepared by the Industrial Section under the direction of Gardiner C. Means, March 1939.

The report prepared by the Brookings Institution, on "America's Capacity to Consume," also included some pioneering estimates in this field.[2] Using data on family spending habits in the decade 1919–1929 and estimated for the year 1929, the study showed the effect on consumption expenditures of increasing the purchasing power of the lower income groups according to several alternative assumptions. The general method followed in making the computations was thus similar to that used in the present study. However, the data available were scanty, permitting the division of consumer expenditures into only four broad categories of consumption; no estimates were included of consumer savings, and no attempt was made to separate the effects of differences in the size from the effects of differences in the distribution of income.

The results presented in the following pages, utilizing the extensive data collected in the Consumer Purchases Study, provide a more complete and detailed set of calculations than has been available heretofore. They cover the disbursements of the Nation for 16 categories of outlay, under a variety of assumptions as to consumer incomes. Three groups of calculations are presented, corresponding to Sections 2, 3, and 4 below: First, the effect on consumer disbursements of differences in the size of total consumer income, with the proportionate distribution of income—that is, the share of income received by each fraction of the Nation's consumer units—held constant; second, the effect of differences in both the total size and the distribution of income; and third, the effect of differences in the distribution of income, with the total size of income held constant. The methods and assumptions adopted in preparing the estimates and the character and value of the results are summarized in the present section. In the last section of the appendix the methods used in making the calculations are described in more detail.

Character and Value of the Calculations

It is obvious that such calculations of consumer disbursements are in no sense forecasts of the Nation's possible future consumption, since they make no attempt to allow for the many other changes in economic and social conditions that could be expected to accompany changes in consumer income. Nor are they estimates of what consumer expenditures and savings might have been in 1935–36 if conditions had been different from what they actually were. They deal merely with two of the many factors influencing the national consumption pattern, isolating the effect of these two factors from the complex of inter-related influences which together determine the way the Nation spends its income.

The character of the calculations also makes it clear that the results do not indicate *changes* in consumer disbursements that could be expected to follow transitional changes in consumer incomes, but merely *differences* in disbursements at different levels or plateaus of income and with different degrees of equality of income distribution. In order to determine the effect of changes in income—such as an expansion in the size of income or a shift toward greater equality of distribution—it would, of course, be necessary to allow for the rate at which the transition to the new income situation was made and for the particular circumstances existing before and during the period of change. While reference is frequently made, in the following pages, to "increases" and "decreases" in income and in disbursements, and occasionally to "changes" in income, the reader must bear in mind that these terms in no way imply the idea of transitional change under actual, dynamic conditions; they are used merely to indicate differences in the magnitude of the figures presented when one set of calculations is compared with another.

Furthermore, it must be recognized that the results of the study in no way indicate how much the Nation can consume, or what volume of expenditures and savings might be required to meet some assumed standard of adequacy or desirability. The particular assumptions made as to size and equality of distribution of income were chosen simply for their arithmetic convenience in revealing the general direction and magnitude of the effect of these factors on the Nation's disbursements. The income sizes selected, as indicated in Section 2, differ very moderately from 1935–36 conditions, ranging from $10 billion below to $20 billion above the 1935–36 level of $60 billion. The distributions of income selected depart much more drastically from existing conditions, since it was necessary, as explained in Section 3, to make more extreme assumptions in order to show the effects of different types of distribution and to bring out the results in sharp relief. But it must be understood that no implications whatever are intended as to the desirability or feasibility of the assumptions adopted.

While full allowance must be made for the necessary limitations in the scope of the study and for the arbitrary and hypothetical character of the estimates, the results nevertheless are believed to be of considerable value. They make an important addition to our present limited knowledge of the effects of the expansion and the redistribution of purchasing power on the demand for various types of consumer goods and services. They are particularly significant in indicating the relative expansion in the demand for food and other "necessities" of life as compared with more "dispensable" items, such as furnishings, automobiles, recreation, and private education. They also give some indication of the magnitude of the expansion in consumer savings that might occur with expansion in consumer income, and of the extent of change in income distribution that would be required to curtail this increase in savings.

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[2] Leven, Maurice, Moulton, Harold G., and Warburton, Clark, *America's Capacity to Consume*, the Brookings Institution, Washington, D. C., 1934, Ch. X.

In addition, the methods followed in making the calculations serve to illustrate how the data on consumer spending presented in this report can be used in further studies to gauge part of the effect of specific economic proposals or developments upon consumer disbursements. These basic data cannot, of course, provide more than a starting point for such estimates of possible changes in consumer demand and savings. As indicated above, some aspects of the problem do not lend themselves to statistical analysis, and for other aspects an adequate statistical basis is not yet available for preparing reliable and realistic estimates of this character. Nevertheless it is possible for the reader to take account of some of the more important factors influencing consumption, other than changes in consumer incomes, by making such rough adjustments in the present data as seem to him appropriate to his particular problem.

The Method Used

The calculations presented in the study were made by recombining or re-weighting the 1935–36 average spending patterns according to the various assumptions adopted as to the volume and the distribution of consumer income. The combined spending patterns of all families and single individuals at each income level, shown in tables 19A and 21A above, were used as a basis for the computations. The aggregate disbursements for the Nation as a whole under each assumed income situation were obtained by multiplying the average figures at each income level by the number of families and single individuals assumed to be at that level.

The actual procedure followed consists of four steps: (1) Each set of assumptions concerning the size and distribution of total consumer income was translated into a frequency distribution giving the number of consumer units at each income level. (2) From this frequency distribution the aggregate income held by the consumer units at each level was determined. (3) The aggregate income at each income level was then apportioned among the broad categories of consumer outlay according to the proportions shown in the "percentage of income" figures presented in tables 19A and 21A. (4) Finally, the resulting aggregates, which represent the amount allocated to each category by consumer units at each income level, were added for all income levels.

Assumptions Underlying the Method

This method obviously involves the acceptance of a number of highly arbitrary assumptions. In the first place, the size and the distribution of consumer income are necessarily selected on an arbitrary basis—especially so in the case of the assumed distributions of income. And, in the second place, holding all other conditions unchanged while size and distribution of income vary is essentially arbitrary and unrealistic. Some of these conditions, to be sure, may well be independent of the volume and the distribution of consumer income. But others are clearly inter-related, so that changes in one set of conditions can be expected to be accompanied by changes in the other.

The adoption of these underlying assumptions is, for the most part, unavoidable with the present paucity of available data. It is essential, however, that their character and significance be kept clearly in mind in interpreting the results of the study. Some further explanation of the more important assumptions therefore seems desirable.

Assumptions as to Prices

Perhaps the most obvious limitation of the present set of estimates lies in the assumption that the prices paid by consumers remain unchanged while total consumer income varies. Our knowledge of the behavior of prices during recent years clearly suggests that changes in the general price level and in price relationships are to a considerable extent inter-related with changes in the level of consumer income. Thus a rise in the volume of consumer buying power tends to be accompanied by a rise in the cost of living, and also by a shift in the relationship between some prices and other prices. Food prices, for example, are particularly sensitive to variations in buying power, declining more than most other prices in times of depression, and rising relatively more as income again expands.

The failure to take account of changes in prices, however, is less important to the results of the present study than may seem offhand to be the case, since the effects of such changes are reflected primarily in the way consumers apportion their expenditures within broad categories of goods and services. Part of the adjustment to a rise in prices, for example, may be made by shifting to cheaper substitutes within the same broad class of items—to cheaper foods, cheaper articles of clothing, cheaper automobiles, and so forth. And some adjustment probably would be made by reducing the quantity of goods and services purchased—by buying less food and clothing, renting smaller homes, purchasing fewer cars.[3] Thus, unless the changes in prices were extreme, they probably would not modify greatly the patterns of spending at different income levels used in making the present calculations.

Furthermore, it must be remembered that an increase in the general level of prices—that is, in the cost of living—would be equivalent to a decrease in family or individual income, so that the modifications of the 1935–36 spending patterns shown in tables 19A and 21A would amount to shifting the figures for each income level toward those of lower levels. Such downward shifts in income level would thus merely offset to some extent the upward shifts involved in the assumed increases in the total size of consumer income. Since changes in the general price level tend to be more moderate than changes in the level of consumer income, it is probable that the effects of the expansion in income would be only partially cancelled by the accompanying rise of living costs. Similar reasoning applies, of course, to decreases in consumer income and in the cost of living.

While no attempt has been made to adjust the present estimates to take account of changes in the price level, it is possible for the reader to make a rough allowance for such changes in interpreting the results presented. Their effect would be roughly equivalent to reducing somewhat the differences in size of income assumed in making the calculations, and hence to lessening somewhat the differences in the national consumption patterns shown in the following pages. Since the purpose of the study is to reveal the general direction and magnitude of these differences in consumption, rather than the exact amount of difference to be expected with a given change in size of income, the omission of adjustments for changes in the price level is of limited significance.

Changes in the relative prices of different goods and services, however, probably would be more significant in interpreting these calculations. Such changes might alter the direction of consumer spending shown in the various national patterns. Since food prices usually show the greatest relative change, the major effect of differential shifts in prices might be to increase the share of food expenditures in the patterns when total consumer income is above the $60 billion level, and to decrease the share of this category in the patterns when the total is at the $50 billion level. This result, it should be noted, would merely add to the effect of a change in the general level of prices, since the proportion of income devoted to food increases as "real income" falls and decreases as it rises. Our present limited knowledge of spending habits, however, provides little or no indication of how the expenditures for other categories of disbursement would be adjusted to offset a relatively large change in the prices of food.

Assumptions as to Spending Habits

Aside from the question of price changes, the use of the 1935–36 spending patterns in making the computations automatically involves a number of further assumptions as to economic and social conditions. Perhaps the most important of these is the assumption that consumers shifting from one income level to another would spend their incomes in the same way as did consumers who were already at the latter level in 1935–36. Very little is known at the present time about the rapidity with which families adjust their expenditures to changes in income level, or the extent to which they eventually adopt the spending pattern of the new income level into which they have moved. But it seems probable that families whose incomes have recently changed show greater individual variations in their spending habits than those whose incomes have been stable, and that there are characteristic differences in the way they apportion their expenditures.

These differences are particularly likely to appear with respect to durable and semi-durable goods, for which purchases can most readily be postponed. With a downward shift in income, a smaller proportion of family expenditures may be devoted to such purchases during the transition period than after adjustment has been made to the lower income level, for the goods acquired in previous years can continue to be used until their serviceability is exhausted.

The influence of such transitional changes in income status, however, is already partly allowed for in the present study. For the average spending pattern at each income level in 1935–36 reflects the expenditures of families whose incomes had recently increased or decreased, as well as of families who had been at the same income level for some period of time. It must be remembered, however, that 1935–36 was a year on the up-swing of the business cycle, when the proportion of families whose incomes had increased over the level of the preceding year was unusually large—at least at some income levels. Estimates of consumer expenditure based on these 1935–36 data, therefore, may be more reliable for periods of economic expansion than for periods of declining economic activity or for years at the peak or the trough of the business cycle.

The effects of transitional changes in the distribution of consumer income may perhaps be as important in directing consumer expenditures as those relating to transitional changes in income level. For it is probable that the proportion of families in each income class is, in itself, one factor influencing spending patterns. Keeping-up-with-the-Joneses might take on new and unprecedented forms if the distribution of income should drastically alter. It has been necessary to assume in the present study that changes in the number and percentage of consumer units at a given income level do not affect the average spending pattern at that level.

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[3] It may be well to remind the reader, at this point, that the calculations of national consumption shown in the present study deal only with dollar outlays, and provide no indication of the effect of the size and distribution of income on the quantities of various goods and services consumed by the Nation.

Another limitation of the estimates arises from the fact that no allowance is made for changes in the tastes and desires of consumers and in the goods available to them. It is well known that trends in consumption habits do occur, apart from changes in prices, in income, or in similar economic conditions. It is obvious that new developments in industrial technology, such as those which produced the automobile, may change spending habits by changing the choices available to consumers. But such changes—at least as regards the main categories of consumer expenditure—are usually gradual, so that the average spending patterns of 1935–36 may prove to be applicable for some years to come. The striking similarity in the expenditure patterns for 1929 developed by the Brookings Institution and those shown by the present study appears to support this hypothesis.[4] But it must be recognized that sizable changes in consumption habits might occur, even within a short period of time, as a result of unusual economic or social developments. The modification of spending habits that might take place in the event of war represents, of course, an extreme example.

Assumptions as to Population

In weighting the 1935–36 spending patterns according to the various assumed income situations, certain assumptions regarding population are involved which also require special explanation. Each set of computations relates to the same total number of consumer units as in 1935–36—that is, to 39,458,000 families and single individuals. And in line with the general procedure followed in the study, no explicit assumptions are made concerning shifts in population, such as trends toward an older population, toward smaller families, or toward urban living. Nevertheless, the fact that a single over-all set of spending patterns is used in making the calculations involves in itself certain implicit assumptions as to changes in the composition and distribution of the population.

The nature of these assumptions will become clear when it is recalled that this over-all set of spending patterns, presented in tables 19A and 21A, is a weighted average of the patterns of all of the major groups of the Nation's consumers. That is, the figures for each income level shown in the tables represent the combined spending patterns of families of different sizes, living in different regions and types of community and belonging to different occupations and different color groups, and of single men and single women.[5] The weights given to these various component groups of consumers in obtaining the average national pattern reflect their relative importance at each income level in 1935–36. At the lower income levels, for example, the proportions of farm and village families living in the South and of single individuals were relatively high, while at the higher levels families living in large cities in the North Central region were more numerous.

Accordingly when the assumption is made, in preparing the calculations, that some or all of the consumer units at a given income level move to higher or lower levels, the proportions of different consumer groups at the new levels would presumably change. And these changes would in turn involve changes in the average figures in the national spending patterns, since each group of consumers allocates a given income in a slightly different way from that of every other group. Yet the fact that the 1935–36 spending patterns are utilized in making the computations implies that no change appears in the relative importance of the different groups at the various levels. Thus a shift in the distribution of the total population among the different component groups is implicit in the estimates.

A concrete example will illustrate this point: Let us consider the proportion of farm families at various income levels and in the pupulation as a whole under the assumption that the income of every consumer unit is increased by $500. At the $500–$750 income level, the proportion of farm families in 1935–36 was 19 percent, and at the $1,000–$1,250 level, 16 percent.[6] These proportions determine the weights given to the spending patterns of farm families in obtaining the average patterns of all families and single individuals at these income levels. If all incomes were increased by $500, all of the families and single individuals in the $500–$750 level would move into the $1,000–$1,250 level, and the proportion of farm families in the higher level would increase from 16 to 19 percent. Since no change is made in the average spending pattern at the $1,000–$1,250 level, the characteristic farm pattern would no longer be given its proper weight. Similar results would appear at the higher levels of income, since the proportion of farm families declines as income advances. While the opposite effect would occur at the lowest income level, as consumers move from the $0–$250 class to the $500–$750 class, the net result of the shifts in income status would be to give insufficient weight in the national estimates to the spending habits of farm families. This would, in effect, be equivalent to assuming a decrease in the total number of farm families in the population, with corresponding increases in the size of certain other consumer groups.

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[4] For comparison of the 1929 and the 1935–36 patterns, see pages 71–72.

[5] For explanation of methods used in constucting these average patterns, see Part I, Sections 1 and 2, and Appendix B, Sections 3 and 4.

[6] See *Consumer Incomes in the United States*, tables 2 and 9B. The figures exclude all farm families who received relief at any time during the year.

In order to avoid these implicit shifts in the distribution of the population among different component groups, it would be necessary to go back to the individual spending patterns of the various groups in building up the national estimates for each assumed income situation. The number of consumer units in each group would have to be redistributed by income level, and the aggregate disbursements for the group obtained by re-weighting the average group pattern. That is, it would be necessary to employ the same method as was used in obtaining the national aggregates for 1935–36 presented in Part II of this report.

Such a procedure would be a computational task of great magnitude, for each of the sizes and distributions of income assumed. Fortunately, a considerable amount of testing indicates that the error involved in using a single set of average consumption patterns is not great.[7] These tests are described in considerable detail in Section 5 below. On the basis of the results presented there, the conclusion seems justified that the estimates that would be obtained by re-weighting the individual patterns for various consumer groups would not differ substantially from those obtained by using the 1935–36 national spending patterns at the various income levels.

The adoption of this over-all set of spending patterns in the present computations can therefore be taken as reasonably consistent with the assumption that the distribution of the population remains as it was in 1935–36.[8]

Summary of the Findings

It may be desirable at this point to summarize briefly the results of the calculations which are presented in more detail in the following pages.

Effect of Differences in Size of Income

We can consider first the effects on national consumption of differences in the size of total consumer income, when the proportionate distribution of income is assumed to remain as it was in 1935–36. Using $60 billion as a base—approximately the income received by consumers in 1935–36—what differences in consumer disbursements appear with increases in income to $70 billion and $80 billion? With a decline in income to $50 billion?

Dollar outlays for every category of disbursement are found to expand with increase in total consumer income under these assumptions. But, as the charts in the following section clearly show, by far the most striking differences occur in the volume of consumer savings. An increase of 16⅔ percent in total consumer income—from $60 billion to $70 billion—causes an increase of almost 50 percent in the net positive savings of the Nation—from $6 billion to nearly $9 billion. With a further increase in income to $80 billion, savings amount to almost $12 billion—nearly double the 1935–36 figure. Thus they absorb nearly 30 percent of the $20 billion difference in income. Conversely, with a drop in consumer income from $60 billion to $50 billion, consumer savings drop sharply to $3½ billion, accounting for more than one-fourth of the $10 billion decline in income.

Of the various categories of current consumption, food expenditures expand most in dollar outlays, but show the smallest percentage increase, rising only 17 percent with a 33⅓ percent rise in income from $60 billion to $80 billion. Housing expenditures show the next largest dollar advance. Combined with food, they claim 26 percent of the additional income—not quite as much as the amount saved. The largest percentage increases in consumption appear for education (that is, private tuition and school supplies), automobile, and recreation expenditures. These three classes of goods and services expand 46 percent, 42 percent, and 39 percent, respectively, with an expansion of 33⅓ percent in size of income. For all other consumption categories, the proportionate change is less than one-third.

Effect of Differences in Both Size and Distribution of Income

The marked expansion in savings shown by the first set of calculations is explained, of course, by the fact that, since the 1935–36 proportionate distribution of income was assumed, a large share of each assumed $10 billion increase in income is allocated to the upper income groups. Let us now consider the effects on consumer disbursements if the assumption is made that as total consumer income becomes larger, its proportionate distribution becomes more equal. What differences in disbursements would appear, for example, if each $10 billion increase in income were evenly divided among all of the Nation's 39 million families and single individuals? What further differences would appear if all of the increases in income were received by the poorest groups?

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[7] In the case of the breakdown of food into purchased and home-produced, and of housing into money expense and imputed value, the error is probably rather large because of the large rural-urban differences. For this reason, the breakdowns of food and housing have been omitted from the results presented in this appendix.

[8] It should be noted that it would be possible to use the individual spending patterns for different consumer groups if it were desired to calculate the effect on the Nation's consumption of shifts in the distribution of the population, as well as of differences in consumer incomes. By re-weighting the average patterns for various groups, the influence of urban-rural migrations or of the movement of population from one region to another could be determined under a variety of assumed conditions. It would also be possible to use the individual patterns to calculate the effect of specific economic measures or proposals on the expenditures and savings of particular groups of the population. The average patterns of spending shown in the present report are limited to those for all families and all single individuals, in addition to the combined pattern for all consumer units; average patterns for various groups of families will be presented in a later report.

Under such assumptions, a larger share of the additional income would, of course, be spent on current consumption needs, with a significantly smaller proportion devoted to savings. Yet, even so, savings still expand more rapidly than total consumer income. With an increase in income from $60 billion to $70 billion, savings would increase fully 30 percent if the difference in income were equally divided, and 20 percent if the $10 billion additional income were allocated to the poorest groups according to the procedures described in Section 3 below. With a further expansion in income, savings expand at an even more rapid rate.

As with the previous set of assumptions, we again find that all of the categories of current consumption share in the general expansion of the consumer market. Food again shows the largest dollar increase, and housing again the next largest. With these more equal distributions, in fact, food and housing together claim well over 30 percent of the additional income—a distinctly larger share than the amount allocated to savings. In terms of percentage increases, automobile and recreation expenditures continue to show relatively large gains, with furnishings, instead of education, now included among the top categories.

The effect on consumer disbursements of one further type of income distribution is considered—a distribution such that the percentage of income saved would remain constant at the 1935–36 ten percent level. In order to arrive at such assumed distributions with incomes of $70 billion and $80 billion, it was found necessary not only to assign all of the additional income to the lower income groups but also to assume a downward shift in the incomes of the upper income groups. The extent of the re-distributon required to produce the stipulated effect on savings was, in fact, found to be very marked. The resulting income distributions, therefore, are highly unrealistic in character, as the discussion in Section 3 clearly indicates. Their immediate value to the present study, however, lies in showing the direction of the expansion of consumer demands with increase in income when we assume that most of the additional purchasing power is allocated to the satisfaction of current consumption needs.

Even with this type of assumed income distribution, we still find some expansion in the demand for all classes of goods and services covered by the study. And in terms of dollar outlays, food and housing still claim the major shares. It is significant to note, however, that differences in the rate of expansion of different categories of expenditure become more marked as equality of distribution and size of income increase. Automobile, furnishings, and recreation expenditures continue to show the most rapid percentage increases, with tobacco, medical care, clothing, and personal care following. Expenditures for transportation other than automobile, for food, and for housing come at the bottom of the list in terms of rate of expansion, with percentage increases for education (private tuition and school supplies) also in a low position with these more equal distributions considered.

Effect of Differences in Distribution of Income

In examining the effect on consumer disbursements of differences in both the size and the proportionate distribution of income, four different types of distribution were considered for incomes of $70 billion and $80 billion. For either of these sizes of income, therefore, we can now compare the various sets of calculations to determine the effect of differences in the single factor of income distribution.

When the size of total consumer income is held constant, the amount of shifting in the apportionment of income among the various categories of disbursement is of course limited, even with extreme differences in the proportion of income distributed to different income groups, since increases in the outlays for some categories are necessarily offset by corresponding decreases in the outlays for other items. As might be anticipated from the preceding discussion, the major differences appear in the figures for savings and for food expenditures. Almost all of the decrease in total disbursements as incomes become more nearly equal is shown in the amount of savings, although outlays for gifts and personal taxes and for education also show some decline. Expenditures for food, in turn, absorb about half of the income released by these three categories. The increases in all other classes of goods and services are relatively small.

In considering these results, it must be understood that the aggregate figures for the Nation as a whole necessarily conceal extensive differences in the disbursements of different income groups. In order to disclose these effects of differences in income distribution, we can calculate the disbursements of each third of the Nation under various hypothetical distributions of income. Assuming a $70 billion income, for example, we can compare a distribution holding the percent of income saved constant with the 1935–36 proportionate distribution. The result indicates an increase of 36 percent in the food expenditures of the poorest third of the Nation, while for the Nation as a whole the advance amounts only to six percent. For all of the other categories of disbursement an even greater contrast appears. It is important, therefore, that the reader keep clearly in mind the over-all character of the national totals in interpreting the results of the study.

SECTION 2. EFFECT OF DIFFERENCES IN SIZE OF INCOME WITH PROPORTIONATE DISTRIBUTION OF INCOME CONSTANT

Of the many factors influencing the aggregate expenditures and savings of the Nation's consumers, none is more important than the total volume of income received. And none is apparently more subject to wide variations over short periods of time; marked changes in the size of national income have taken place within recent years, and there is no reason to believe that such variations will not occur again in the future. Furthermore, the expansion of the Nation's income is an accepted goal of national policy, and one means of assuring some improvement in the incomes of the lower income groups. For these reasons, it is important that the effect of this factor on national consumption be carefully examined. In this section of the report, these effects will be considered apart from the effects of differences in the distribution of income by assuming the same proportionate distribution as in 1935–36; in the following section both factors will be considered together. Throughout the discussion, the spending habits of the people, the size of the population, and other variables which affect expenditures will be assumed not to change. As the previous section has indicated in detail, these assumptions do not permit the use of the calculations to predict the effect of actual changes in income.

Sizes of Income Selected

In order to study the effect of size of total consumer income upon consumption demand, four different sizes of income have been assumed. This number seems to be the optimum for purposes of the present study. Fewer would fail to bring out clearly the relationships between size of income and consumption and would not demonstrate the consistency of the results. More would be unnecessary and tedious.

The figure for total consumer income for the year 1935–36 was about $59¼ billion, and it is convenient to use the rounded figure of $60 billion as one of the assumed sizes. Around this figure, at $10 billion intervals, three more assumed income sizes were chosen: $50, $70, and $80 billion. These incomes are to be considered in terms of 1935–36 prices, which were of course lower than prices in 1929. In terms of 1929 prices, the value of the goods and services represented by these four incomes would range from $61 to $98 billion.[1] In terms of 1933 prices, they would range from $47 to $75 billion. An income of $80 billion in 1935–36 prices is about one-third higher than the actual income in 1935–36 and about one-fourth higher than the 1929 income, if the latter is also expressed in 1935–36 prices. To assume a total income much larger than $80 billion might well involve broad changes in the economy as a whole which are markedly inconsistent with our explicit assumption of 1935–36 conditions. Furthermore, the methods used in making the calculations are less valid for sizes of income far removed from that in the base year 1935–36, because larger and more numerous shifts in relative prices and in spending habits are likely to occur. Since the four sizes chosen are sufficient to indicate the effects of differences in the size of total consumer income upon aggregate consumption demands, it seemed inadvisable to move further than $20 billion from the 1935–36 base year figure of $60 billion.

Obtaining the Income Distributions

The next step is to determine, for each size of total consumer income, the number of consumer units at each income level. This is to be done in such a way as to hold constant the degree of inequality of income distribution, as measured by the proportion of aggregate income held by each proportion of consumer units. The degree of inequality could be held constant at any desired level, but it seems most reasonable to accept the actual degree of inequality existing in 1935–36.

It should be noted that it is not the distribution of consumer units by income level that is held constant. The number of consumer units at each income level must vary to allow the total income to change. It is the degree of inequality of income distribution which does not change; that is, the proportion of total income received by a given proportion of the Nation's consumer units.

The proportion of total income held by each tenth of the Nation in 1935–36 was shown in table 10, above. Similar procedures could be followed to construct a

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[1] In deflating the income figures, the Bureau of Labor Statistics index of cost of goods purchased by wage-earners and lower-salaried clerical workers in 32 large cities was used. See *Changes in Cost of Living*, Department of Labor Bulletin R-749, December 15, 1937.

table for twentieths, fiftieths, hundredths, or for any other fraction of the Nation's consumers. It is the proportions of total income held by these various segments that are assumed to be fixed. Under the assumption that they remain unchanged, any size of total consumer income can easily be distributed by income level. The procedure followed is a simple one, the only problem being the technical one of interpolation, discussed in section 5 below.

With differences in size of total consumer income and with proportionate distribution of income constant, the resulting distributions of consumer units by income level are such as would be obtained by multiplying the 1935–36 income of every consumer unit by the ratio of the assumed total consumer income to the actual total consumer income in 1935–36. For example, a family whose income was $6,000 with a total consumer income of $60 billion would have an income of $5,000, $7,000, and $8,000 in the $50, $70, and $80 billion distributions, respectively.

The assumed distributions of consumer units by income level for each size of total income are shown in table 1C. It should be noted that the modal income class shifts upward as the size of total income increases, and that the consumer units are less concentrated within a few income classes. Comparing the $80 billion income distribution with the $50 billion, it is seen that the frequencies below $500 are cut in half, while those at various income levels above $2,000 are doubled, tripled, or even quadrupled.

Effect on Aggregate Disbursements

The effect of the four assumed income situations on the disbursements of the Nation's consumers is shown in chart IC and table 2C.

Table 1C.—*Distributions of consumer units by income level, assuming four sizes of total consumer income with same proportionate distribution of income as in 1935–36*

Income level	Percentage distribution of consumer units with total consumer income of—			
	$50 billion	$60 billion	$70 billion	$80 billion
Under $250	7.6	5.4	4.4	3.7
$250–$500	15.1	11.5	9.2	7.4
$500–$750	17.6	14.5	11.6	9.3
$750–$1,000	16.1	14.8	12.6	10.9
$1,000–$1,250	12.0	12.6	12.1	11.1
$1,250–$1,500	8.6	9.5	10.4	10.1
$1,500–$1,750	6.4	7.4	8.1	8.7
$1,750–$2,000	4.5	5.8	6.3	7.1
$2,000–$2,500	5.1	7.6	9.4	10.3
$2,500–$3,000	2.5	3.8	5.7	7.3
$3,000–$4,000	2.0	3.5	5.0	7.0
$4,000–$5,000	.7	1.2	2.0	2.8
$5,000–$10,000	1.2	1.5	2.0	2.8
$10,000–$15,000	.3	.4	.6	.7
$15,000–$20,000	.1	.2	.2	.3
$20,000 and over	.2	.3	.4	.5
All levels	100.0	100.0	100.0	100.0

No Satiation of Wants

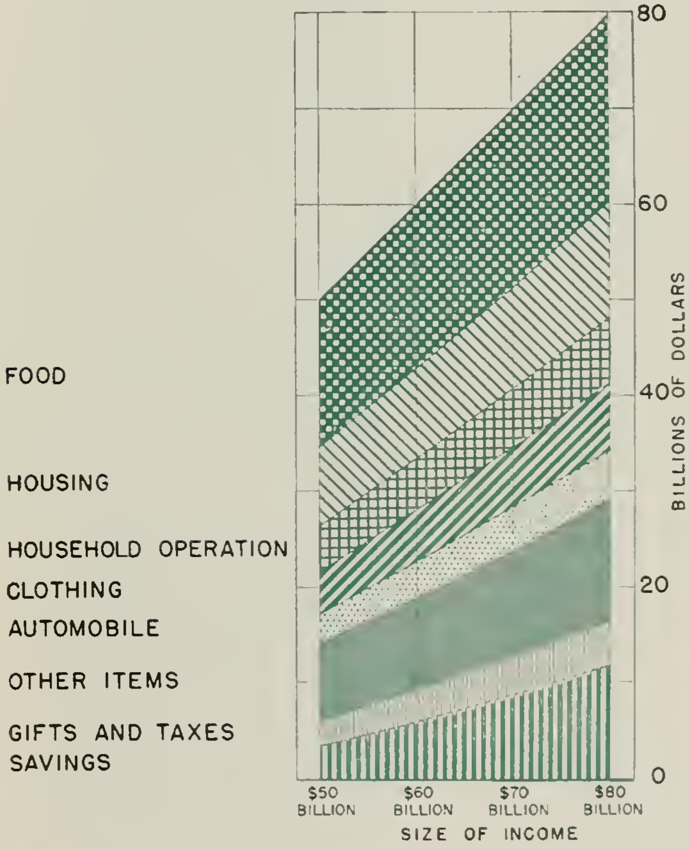
One of the most striking facts revealed is that without exception every category shows an increase in the amount allocated to it as the size of total consumer income increases.[2] There is no evidence of a limit to the expansion of expenditures for any category which would result from satiation of wants. For particular goods and services there may well be satiety; in fact, there may even be cases of decreased expenditures—as in the case of inferior goods for which other goods are substituted as income increases—but this is apparently not true of any major category of goods and services.

AGGREGATE DISBURSEMENTS ASSUMING FOUR SIZES OF TOTAL CONSUMER INCOME

WITH

SAME PROPORTIONATE DISTRIBUTION OF INCOME AS IN 1935–36

1935–36 PRICES AND SPENDING HABITS



BASED ON TABLE 2C

Chart 1C

Note.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

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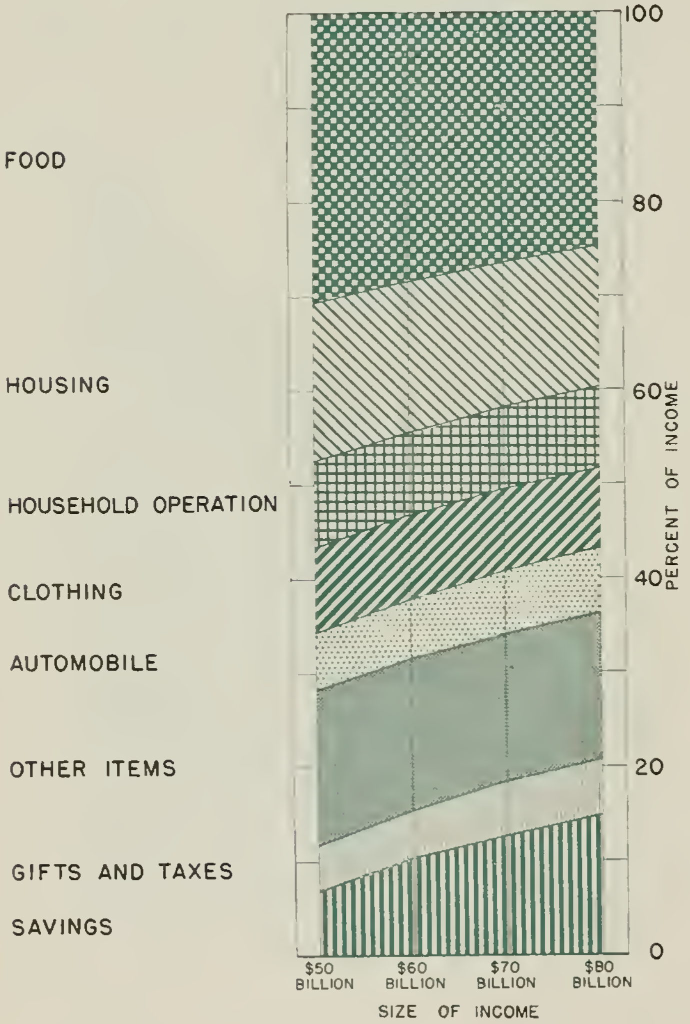
[2] For the meaning of the terms increase, decrease, and change as used in these pages, see the explanation in the previous section.

Increase in Savings

It is evident, from chart 1C, that savings increase very rapidly with the increase in total income—so much so that the percent of total income saved, shown in chart 2C, rises sharply. With a $60 billion income, approximately the actual amount in 1935–36, $6 billion, or 10 percent of the total, is saved. With a $70 billion income, savings are nearly $9 billion, or approximately 13 percent of the total. At $80 billion, they are 15 percent, or almost $12 billion. With a drop in total consumer income to $50 billion, savings shrink to $3½ billion, or only 7 percent of income.

PERCENTAGE ALLOCATION OF DISBURSEMENTS ASSUMING FOUR SIZES OF TOTAL CONSUMER INCOME
WITH
SAME PROPORTIONATE DISTRIBUTION OF INCOME AS IN 1935–36
1935–36 PRICES AND SPENDING HABITS



BASED ON TABLE 2C

CHART 2C

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

It is important to bear in mind that the savings figures presented here represent consumer savings only. Savings by governments and by corporations, which also fluctuate greatly as the size of the national income changes, are not included in the estimates.[3]

Other Disbursements

Table 2C indicates that gifts and personal taxes also increase more rapidly than total consumer income, so that the percent of income allocated to this category increases from 4.9 percent with a $50 billion income to 5.7 percent with an $80 billion income.

Among expenditures for current consumption, only three categories show increases in dollar terms which are large enough to result in slight increases in the percent of income allocated to them, namely, education (that is, private tuition and school supplies), automobile, and recreation expenditures. Furnishings and "other items" account for constant percentages of total disbursements, while every other category accounts for a decreasing percentage as total consumer income increases.

Stating these results obversely, if total consumer income is decreased while the proportionate distribution of income remains the same, the categories of disbursement which show decreases more than proportionate to the decreases in income are as follows: Savings, gifts and personal taxes, education, automobile, and recreation.

Percentage Differences in Disbursements

The same results are presented in a different form in chart 3C. This chart indicates the percentage increases in the disbursement for each category of consumption, for gifts and personal taxes, and for savings, that occur with increases in the size of total consumer income. With a change in income from $60 billion to $80 billion—an increase of one-third over the approximate 1935–36 amount—savings increase by 96 percent. Four other categories of disbursement increase by more than one-third: gifts and personal taxes and education each increase by 46 percent, automobile expenditures by 42 percent, and recreation expenditures

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[3] For definition of savings and for discussion of reliability of savings figures, see Part I, pp. 21–22, and Part II, pp. 53–55. For relation of savings figures for 1935–36 to those for other years, see footnote 24 on p. 21, and pp. 69–70.

[4] While separate figures for gifts and personal taxes cannot be given, the reader should bear in mind that gifts form the major item in this category. For further explanation, see pp. 56–58.

TABLE 2C.—*Disbursements of American consumers, assuming four sizes of total consumer income with same proportionate distribution of income as in 1935–36* [1]

Category of disbursement [2]	Aggregate disbursements (in millions) with total consumer income of—				Percentage of aggregate disbursements with total consumer income of—				Percentage changes in disbursement for each category as total consumer income varies from $60 billion to—		
	$50 billion	$60 billion	$70 billion	$80 billion	$50 billion	$60 billion	$70 billion	$80 billion	$50 billion	$70 billion	$80 billion
Current consumption:											
Food	$15, 369	$17, 013	$18, 503	$19, 874	30. 8	28. 4	26. 4	24. 9	−9. 7	8. 8	16. 8
Housing	8, 419	9, 597	10, 753	11, 876	16. 8	16. 0	15. 4	14. 9	−12. 3	12. 0	23. 7
Household operation	4, 602	5, 355	6, 095	6, 822	9. 2	8. 9	8. 7	8. 5	−14. 1	13. 8	27. 4
Clothing	4, 500	5, 327	6, 145	6, 949	9. 0	8. 9	8. 8	8. 7	−15. 5	15. 4	30. 4
Automobile	3, 040	3, 847	4, 655	5, 447	6. 1	6. 4	6. 6	6. 8	−21. 0	21. 0	41. 6
Medical care	1, 897	2, 242	2, 582	2, 919	3. 8	3. 7	3. 7	3. 7	−15. 4	15. 2	30. 2
Recreation	1, 346	1, 668	1, 990	2, 311	2. 7	2. 8	2. 8	2. 9	−19. 3	19. 3	38. 5
Furnishings	1, 192	1, 447	1, 687	1, 916	2. 4	2. 4	2. 4	2. 4	−17. 6	16. 6	32. 4
Personal care	912	1, 044	1, 170	1, 289	1. 8	1. 7	1. 7	1. 6	−12. 6	12. 1	23. 5
Tobacco	860	982	1, 091	1, 189	1. 7	1. 6	1. 6	1. 5	−12. 4	11. 1	21. 1
Transportation other than auto	788	888	985	1, 079	1. 6	1. 5	1. 4	1. 3	−11. 3	10. 9	21. 5
Reading	490	555	617	675	1. 0	. 9	. 9	. 8	−11. 7	11. 2	21. 6
Education	405	512	626	746	. 8	. 9	. 9	. 9	−20. 9	22. 3	45. 7
Other items	260	307	355	402	. 5	. 5	. 5	. 5	−15. 3	15. 6	30. 9
All consumption items	44, 080	50, 784	57, 254	63, 494	88. 2	84. 6	81. 8	79. 4	−13. 2	12. 7	25. 0
Gifts and personal taxes [3]	2, 455	3, 113	3, 814	4, 541	4. 9	5. 2	5. 4	5. 7	−21. 1	22. 5	45. 9
Savings	3, 465	6, 103	8, 932	11, 965	6. 9	10. 2	12. 8	14. 9	−43. 2	46. 4	96. 1
All items	50, 000	60, 000	70, 000	80, 000	100. 0	100. 0	100. 0	100. 0	−16. 7	16. 7	33. 3

[1] Assuming same prices and spending habits as in 1935–36.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

by 39 percent. These are, of course, the five categories mentioned above as gaining in importance, for if expenditure on a category increases more than one-third when income increases one-third, the percent of income allocated to the category increases.

All other categories show less than a 33⅓ percent increase. Furnishings nearly keep pace with total income by increasing 32 percent; clothing and medical care are next, each increasing by 30 percent. The other categories increase considerably less, and food the least of all, showing an increase of only 17 percent. Thus food is, of all the categories of consumer outlay, the one that expands least with a larger national income, but even it would increase half as fast as total income.

Use of Each $10 Billion Difference in Income

One further question might be asked about the behavior of national expenditures under various sizes of consumer income. That is, how would each $10 billion difference in total income be spent? Answers to this question are given in chart 4C and table 3C.

Here is clearly brought out the large share of the increases in income which go to savings. No other category receives much more than half the amount going to savings, and all consumption items together receive only a little more than twice as much. Furthermore, savings claim an increasing share of the successive $10 billion increases: 26 percent as income moves from $50 billion to $60 billion, 28 percent as it increases to $70 billion, and 30 percent as it advances to $80 billion.

Food takes the second largest slice of the income increments—about 15 percent—in spite of showing the smallest percentage increase of all the categories. Unlike savings, however, it receives a declining share of each additional $10 billion.

PERCENTAGE DIFFERENCES IN DISBURSEMENTS ASSUMING DIFFERENCES IN SIZE OF TOTAL CONSUMER INCOME
WITH
SAME PROPORTIONATE DISTRIBUTION OF INCOME AS IN 1935–36
1935–36 PRICES AND SPENDING HABITS

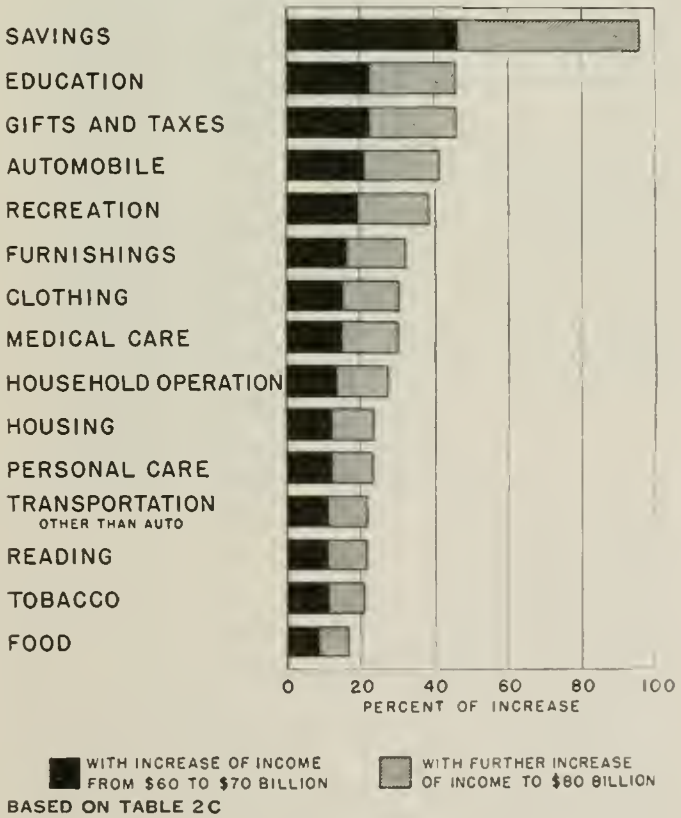


CHART 3C

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

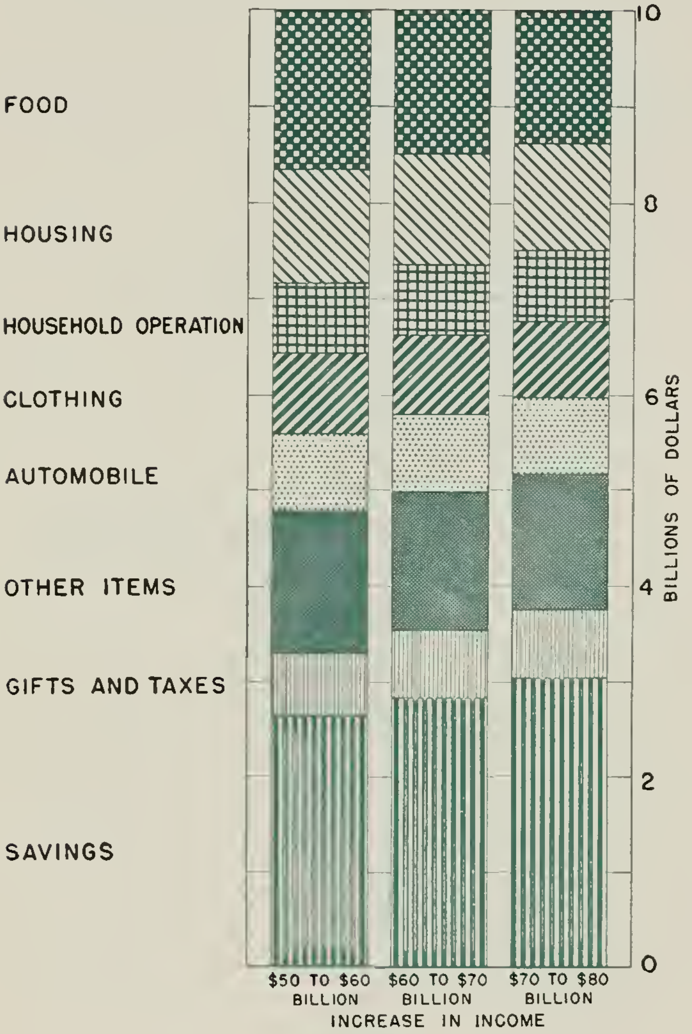
USE OF EACH $10 BILLION DIFFERENCE IN TOTAL CONSUMER INCOME ASSUMING FOUR SIZES OF INCOME

WITH

SAME PROPORTIONATE DISTRIBUTION OF INCOME

AS IN 1935–36

1935–36 PRICES AND SPENDING HABITS



BASED ON TABLE 3C

CHART 4C

NOTE.—Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes.

The other items of outlay fall approximately in the order of their size with a $60 billion income, but the more sensitive categories—automobile, recreation, education, and gifts and personal taxes—take somewhat more than their proportionate shares. Automobile expenditures, in fact, take almost as much as clothing, and more than household operation; while gifts and personal taxes take nearly as much as household operation. Gifts and personal taxes and education take increasing shares of the successive $10 billion increments, but the shares going to automobile and recreation are practically the same for each of the three step-ups in total income. This is in contrast to all other categories (except "other items") which receive decreasing slices of the successive $10 billion increases.

TABLE 3C.—*Use of each four $10 billion difference in total consumer income, assuming sizes of income with same proportionate distribution of income as in 1935–36* [1]

Category of disbursement [2]	Increases in disbursements (in millions) with increase in size of total consumer income from—		
	$50 billion to $60 billion	$60 billion to $70 billion	$70 billion to $80 billion
Current consumption:			
Food	$1,644	$1,490	$1,371
Housing	1,178	1,156	1,123
Household operation	753	740	727
Clothing	827	818	804
Automobile	807	808	792
Medical care	345	340	337
Recreation	322	322	321
Furnishings	255	240	229
Personal care	132	126	119
Tobacco	122	109	98
Transportation other than auto	100	97	94
Reading	65	62	58
Education	107	114	120
Other items	47	48	47
All consumption items	6,704	6,470	6,240
Gifts and personal taxes [3]	658	701	727
Savings	2,638	2,829	3,033
All items	10,000	10,000	10,000

[1] Assuming same prices and spending habits as in 1935–36.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

Relation of Results to Average Spending Patterns

The results of the calculations presented above are of such importance in their economic implications that it seems desirable to explain them at further length, despite the fact that the explanation will of necessity be somewhat technical.

The aggregate expenditures of the Nation depend upon the size of the total consumer income of the Nation, as the figures just presented have shown; this dependence is of the same nature as the relation between the expenditure pattern of a single family and the income of the family. Since the Nation in its aspect of consumer is merely the sum total of the 39 million families and single individuals, it must be true that the way the Nation reacts to changes in its income depends upon the way the component consumer units react to changes in their incomes. In other words, the relation between the consumption of the Nation and the income of the Nation depends upon the relation between the expenditure pattern of the consumer units and the incomes of the consumer units, that is, upon the "income-expenditure graphs" shown in charts 11 and 12 in part I.[5]

Increases Depend on Steepness of the Income-Expenditure Graphs

The simplest example of this dependence occurs when the income-expenditure graph for some category, say recreation, is a straight line. Let us assume that at each income level the average consumer unit would spend 3 cents of an additional dollar of income on recreation—that is, that the slope of the straight line is 0.03. Then if the Nation's income is increased by $10 billion, the expenditure for recreation will increase $300 million, regardless of whether the additional income goes to high income or low income consumer units. From this it follows that there is a straight-line relationship between the Nation's income and the Nation's expenditure on recreation, and that the slope or rate of increase of this line is the same as the slope of the income-expenditure graph for recreation, namely 0.03.

If the income-expenditure graph is not a straight line, however, the relationship between the Nation's expenditure on a particular category and the Nation's income depends on how much of the increase in income goes to high income and how much to low income consumer units, as well as on the general shape of the income-expenditure graph.

Application of These Principles

The steepest of the income-expenditure graphs, as shown in charts 11 and 12, is that for savings. It follows that aggregate savings increase more rapidly than any other category as total income increases—that is, savings take the largest share of each $10 billion added to income. Also, the savings graph is extremely steep relative to its height, which explains why its percentage increase—96 percent as income changes from $60 to $80 billion—is more than twice that of any other category. And finally, except for the very lowest income levels, the savings graph rises at an increasing rate—that is, it is concave upward. The same relationship will tend to hold for savings as related to total income; savings take a larger and larger share—26 percent, 28 percent, and 30 percent—of the successive $10 billion increments in income.

Food has the second greatest slope among the income-expenditure graphs, and it will be remembered that this category accounts for the second largest dollar share of each $10 billion increase. In other respects, however, food is in striking contrast to savings. Though its slope is great in absolute terms, the graph is flat relative to its height, so that the percentage increase in food is small. Also the graph is concave downward, so that the amount going to food out of successive $10 billion increases in total income declines instead of increasing, as in the case of savings.

The housing curve shows much the same characteristics as that for food, although the changes are not as pronounced. The gifts and personal taxes graph is not as steep absolutely, but is very steep relative to its height and is concave upward. Hence this category accounts for a rather small but increasing share of successive income increments and shows a large percentage increase in disbursements.

The graphs for medical care and for recreation exemplify the characteristic difference between "urgent" and "dispensable" categories. Both graphs are nearly straight lines except at very high income levels. The graph for medical care, however, is such that if extrapolated downward it would pass above the origin, so that at most points on the graph the slope is less than the slope of a line drawn to the origin.

The result is that medical care accounts for 3.7 percent of the first $60 billion in total consumer income, and only 3.4 percent of the next $10 billion. The recreation graph, on the other hand, would pass to the right of the origin if extrapolated, so that recreation, which accounts for only 2.8 percent of the first $60 billion, takes a larger share—3.2 percent—of the next $10 billion.

In connection with this analysis of the behavior of the curves for major categories of consumption, it should be noted again that expenditures for individual items within a category may behave quite differently from the category as a whole. The income-expenditure curves for some items of food may behave more like the savings curve, while those for some items of saving may behave more like the food curve than like the curve for all savings items combined.

How the Three Thirds of the Nation Use Increases in Income

In interpreting the results just presented, it must be borne in mind that they arise from a very unequal distribution of the assumed $10 billion differences in income among the Nation's 39 million families and single individuals. Under the assumed conditions, only about $1 billion of each additional $10 billion was allocated to the lower third of all consumer units, since that was the proportion of total consumer income received by them in 1935-36. At the other end of the income scale, $2⅔ billion went to 5 percent of the consumer units. This is, of course, one reason for the very large increases in savings and the small proportionate increase in expenditures for food.

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[5] For discussion of these graphs, see pp. 38-40.

Table 4C shows how the $10 billion difference in income, assuming total incomes of $60 and $70 billion was distributed among the three thirds of the Nation, and how each third allocated its share to the various categories. Here it will be seen that the upper third accounts for the largest share of the increase in every category.

TABLE 4C.—*Use by each third of Nation of $10 billion difference in total consumer income, assuming incomes of $60 and $70 billion with same proportionate distribution of income as in 1935–36* [1]

Category of disbursement [2]	Increases in disbursements (in millions) of—				Percentage of increase in disbursements of—		
	All consumer units	Lower third	Middle third	Upper third	Lower third	Middle third	Upper third
Current consumption:							
Food	$1,490	$314	$509	$667	30.6	21.3	10.1
Housing	1,156	145	330	681	14.1	13.8	10.4
Household operation	740	91	195	454	8.9	8.2	6.9
Clothing	818	93	218	507	9.0	9.1	7.7
Automobile	808	53	240	515	5.2	10.1	7.8
Medical care	340	35	104	201	3.4	4.4	3.0
Recreation	322	28	89	205	2.7	3.7	3.1
Furnishings	240	29	85	126	2.8	3.6	1.9
Personal care	126	19	39	68	1.8	1.6	1.0
Tobacco	109	22	43	44	2.1	1.8	.7
Transportation other than auto	97	15	24	58	1.5	1.0	.9
Reading	62	11	18	33	1.1	.8	.5
Education	114	6	22	86	.6	.9	1.3
Other items	48	3	16	29	.3	.7	.4
All consumption items	6,470	864	1,932	3,674	84.1	81.0	55.7
Gifts and personal taxes [3]	701	42	114	545	4.1	4.8	8.3
Savings	2,829	121	338	2,370	11.8	14.2	36.0
All items	10,000	1,027	2,384	6,589	100.0	100.0	100.0

[1] Assuming same prices and spending habits as in 1935–36.

[2] For explanation of items included in each category, see pp. 95–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

More interesting, however, is the difference in the way the three thirds allocate their added income to the various types of outlay. The lower third spends over 30 percent of its added income on food, while the upper third spends only 10 percent for this category. This difference is offset by the lower percent of the increase saved by the lower third—only 12 percent in contrast to the 36 percent saved by the upper third.

Differences among the three thirds of the Nation in the percentage allocation of income to other categories of disbursement are much less striking. Although the lower third devotes three times as large a proportion of its added income to tobacco as does the upper third, twice as large a proportion to reading, and only half as large a proportion to education, yet the absolute differences in apportionment are almost negligible.

In other words, if the greater part of the $10 billion increase in income had been allocated to the lower third, the percent saved would have been closer to 12 percent than to 28 percent, while the percent spent for food would have been nearer 30 than 15. The differences in dollar disbursements for these categories would be very marked. The absolute amounts devoted to other categories would not have been greatly changed from what they are when the greater part of each $10 billion is assumed to go to the upper third of the Nation.

SECTION 3. EFFECT OF DIFFERENCES IN SIZE AND PROPORTIONATE DISTRIBUTION OF INCOME

The preceding section presented the patterns of consumer disbursements that might be expected at different levels of total income if the relative distribution of income is assumed to remain as it was in 1935–36. In this section the effect of differences in both the size and the proportionate distribution of income will be discussed—assuming, as explained in section 1 above, that all other conditions remain unchanged.

The problem of the distribution of income has attained a new importance in recent years. It is intimately connected with the welfare of the entire Nation, and particularly, with the welfare of the lower income groups. Furthermore, there is a growing recognition that a better understanding of income distribution is necessary to an understanding of the functioning of the economic system as a whole. Economists have, for example, indicated in recent years an increasing interest in the relationship between consumption and savings. Since the proportion of income saved appears to increase as total income expands, and since this phenomenon is directly related to the distribution of income, it is obviously desirable that we know more concretely how this relationship works and what needs to be done to bring about and maintain the most effective relationship between them.

Furthermore, it is recognized that the pressing problems of improving levels of living, of expanding the present consumer markets for goods and services, and of finding new outlets for the commodities and services produced by our economy, are all linked not only with the size of total income but also with the way that income is distributed. Finally, there is the question of the extent to which the distribution of income determines how far total income may be expanded and maintained on a high level. On all of these counts the distribution of income and its relationship to the other aspects of our economy merit careful study.

In the light of these important questions the character of the estimates presented here will seem modest indeed. They may be accepted, however, as a step in the development of techniques and methods in analyzing the problem of distribution. They will throw some light on the differences in consumer demand and savings that accompany differences in both the size and distribution of income. They are not forecasts of what is likely to happen if income expands and its distribution changes.

Selection of Assumed Distributions

In this section three of the four sizes of total consumer income used in Section 2 above are again considered—$60, $70, and $80 billion. The $60 billion income, it will be recalled, is almost identical with the actual income in 1935–36. However, in making assumptions regarding income distribution a new problem arises. What changes in the distribution of income shall be assumed? There was no difficulty involved in selecting variations in total income. Changes in size of income of similar magnitudes to those adopted for study in this report have actually taken place in recent years. But there is little or no basis in the past for selecting changes in the distribution of income. Indeed, there are few data showing any marked variations in the proportionate distribution of income, even over a considerable period of time.

Again, while total income can only become smaller or larger, income distribution is susceptible of an infinite variety of types of change. Chart 4 on page 10 of the present report illustrates how income was distributed in 1935–36.[1] Each bar measures the proportion of income obtained by each tenth of the Nation. It can readily be seen that these bars can be shortened or lengthened in countless combinations of ways to represent new distributions of income. The particular assumptions selected must, therefore, be determined by their usefulness in bringing out the different effects of distribution of income upon the Nation's consumption. Needless to say, whatever assumptions are made must, of necessity, be highly arbitrary.

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[1] Similar figures, in percentage form, are shown in chart 3 in Consumer Incomes in the United States.

In section 2, above, the assumption made as to the distribution of income was that it be proportionately the same as in 1935–36. This meant—as chart 4 and table 10 above indicate—that 36 percent of the total income was assumed to go to the top one-tenth of the Nation's families and single individuals, and 1.7 percent to the lowest tenth, with the other tenths receiving proportionate shares between these two extremes. In the present section three more assumptions are made as to the distribution of total income. All of them are arbitrary in the sense that they were selected without reference to whether they are desirable or undesirable on social or economic grounds, and in the sense that they were selected without consideration of their bearing on any specific proposals for changing the distribution of income. They were chosen because they offer sufficient contrast to give some indication of the effects on consumer disbursements of different types of income distribution, and because they provide a sufficient degree of difference to bring out the results in sharp relief.

The first of the three new assumptions considered in this section is the nearest to the actual distribution in 1935–36. The assumption is that equal amounts—rather than proportionate shares—of increments in income are given to all consumer units. Thus the lowest income groups share dollar for dollar with the highest income groups in the assumed additions to total income. The second assumption involves raising the incomes of the poorest groups as total income changes from $60 to $70 and to $80 billion, by assuming that the entire increase goes to these groups. This method assumes that the incomes of the higher income groups remain unchanged. The third assumption is related to the amount of national savings. It involves changing the proportionate distribution of income, as total income changes, in such a way as to hold the proportion of national income saved constant at about 10 percent, the 1935–36 figure. This assumption requires shifts toward the average income in both the lower and the higher income groups.

These three sets of assumptions regarding the distribution of income, together with the actual distribution in 1935–36, serve to illustrate a variety of possible distributions and their effects upon consumption. Again, it must be emphasized that the estimates based on these assumptions are isolated from all other factors affecting income and consumption. They must not, therefore, be regarded either as specific forecasts of what is likely to happen, or as proposals of what should happen.

Assuming Equal Distribution of Differences in Total Income

The first set of assumptions involves the smallest deviation from the actual distribution of income in 1935–36. All consumer units are assumed to share equally in the differences in total consumer income. Thus, if total income changes from $60 to $70 billion, each one of the 39,458,000 consumer units is assumed to receive an additional $253. Similarly, at the $80 billion level each consumer unit is assumed to receive an additional $506.

In the same way, each tenth of the Nation's consumer units would receive $1 billion with each $10 billion difference in total income, and each bar shown in chart 4 above would be extended an equal amount under this assumption. If all consumer units were classified into three equal groups, each third would receive 33⅓ percent of the difference in income, whereas when the $10 billion differences in income were distributed according to the actual distribution that existed in 1935–36, the lower third of the Nation received 10 percent, the middle third 24 percent, and the upper third 66 percent of the additional income.

Under the present assumption the relative differences in income between consumer units or between income groups become progressively smaller as income is added, although the absolute differences remain unchanged. For example, under the 1935–36 distribution of income, a $600 income would increase $100 to $700, and a $60,000 income would increase $10,000 to $70,000, with an increase in total income from $60 to $70 billion. But when every family and single individual is assumed to share equally in the differences in total income, both the $600 income and the $60,000 income would increase a flat $253 with the same change in total consumer income.

The present assumption as to distribution results, therefore, in a decreasing disparity of individual incomes as total income expands. The highest tenth, instead of receiving 36 percent of total income as in 1935–36, would receive 32 percent of a $70 billion income and about 30 percent of an $80 billion income. Conversely, the lowest tenth would move from 1.7 percent of total income in 1935–36 to 2.9 percent and 3.8 percent of $70 and $80 billion incomes, respectively.[2]

Compared with the distribution of income in 1935–36, this proportionate distribution results in a movement of the share of income received by each consumer unit—or each tenth or third of the Nation—one-seventh of the way toward its pro rata share of income with an increase in total income from $60 to $70 billion;

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[2] These decile figures have been brought together for all of the assumed variations in the distribution of income in table 15C in Section 5 of this appendix.

and one-fourth of the way toward its pro rata share with an increase from $60 to $80 billion. That is, with a $70 billion total income under this assumption, the 1935–36 proportionate distribution would be moved 14 percent of the way toward equality, and with an $80 billion income, 25 percent of the way toward equality of income distribution.[3]

The distribution of consumer units by income level, assuming an equal distribution of differences in total income to all consumer units, is shown in table 5C. It will be noticed that the distribution of percentages is almost identical with the 1935–36 distribution as long as the income class interval remains $250, except that there is a step-up of one interval at $70 billion, and of two intervals at $80 billion. This result is, of course, merely a coincidence. When $10 or $20 billion is divided equally among approximately 40 million consumer units, each one gets about $250 or $500, which is the length of one or two class intervals. That is, under this assumption the entire distribution is moved bodily up the income scale a distance of $250 or $500.

TABLE 5C.—*Distributions of consumer units by income level, assuming three sizes of total consumer income and several proportionate distributions of income*

Income level	Percentage distribution of consumer units with—						
	Distribution same as in 1935–36 with $60 billion income	Equal distribution of each $10 billion addition to income with income of [1]—		Distribution of each $10 billion addition to income to poorest groups with income of [2]—		Distribution of total consumer income such that percentage of income saved remains as in 1935–36 with income of [3]—	
		$70 billion	$80 billion	$70 billion	$80 billion	$70 billion	$80 billion
Under $250	5.4						
$250–$500	11.5	5.2				0.8	
$500–$750	14.5	11.5	5.2			8.1	
$750–$1,000	14.8	14.5	11.4	17.1		14.8	0.3
$1,000–$1,250	12.6	14.8	14.4	25.6		17.1	11.2
$1 250–$1,500	9.5	12.7	14.8	25.6	32.6	15.5	19.9
$1,500–$1,750	7.4	9.6	12.7	7.4	32.6	11.6	20.7
$1,750–$2,000	5.8	7.4	9.6	5.8	16.3	8.5	15.6
$2,000–$2,500	7.6	10.2	13.3	7.6	7.6	10.9	17.6
$2,500–$3,000	3.8	5.4	7.6	3.8	3.8	5.2	7.4
$3,000–$4,000	3.5	4.5	6.0	3.5	3.5	4.0	4.4
$4,000–$5,000	1.2	1.6	2.1	1.2	1.2	1.2	1.0
$5,000–$10,000	1.5	1.7	1.9	1.5	1.5	1.5	1.4
$10,000–$15,000	.4	.4	.5	.4	.4	.4	.3
$15,000–$20,000	.2	.2	.2	.2	.2	.2	.1
$20,000 and over	.3	.3	.3	.3	.3	.2	.1
All levels	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Each one of the 39,458,000 families and single individuals is assumed to receive approximately $253 of each $10 billion increase in total consumer income.

[2] With the first $10 billion increase in total consumer income, it is assumed that the incomes of all families and single individuals are raised to a minimum of $750 and that the remainder of the additional income is distributed to the three income levels between $750 and $1,500. With the second $10 billion increase, it is assumed that all incomes are raised to a minimum of $1,250 and that the remaining income is distributed to the three levels between $1,250 and $2,000.

[3] Savings have been held constant at 10.2 percent since this was the figure for a $60 billion consumer income distributed as in 1935–36. See table 2C. The percentage figure for savings at $60 billion income differs slightly from the estimated figure for 1935–36, shown in table 7, because total consumer income in that year was slightly under $60 billion.

Of more importance, perhaps, is the fact that under this method of distributing differences in income, minimum incomes are established at $250 and $500 with total incomes of $70 and $80 billion, respectively.

Effect on Aggregate Disbursements

The effect of equal distribution of increments in total consumer income on the disbursements of American consumers is shown in table 6C. The first significant fact that emerges from the table is the expansion of the consumer market by about $7.6 billion with each $10 billion increase in total income, making a total expansion of the consumer market of more than $15 billion between the $60 and $80 billion income levels. Thus, over three-fourths of every $100 increase in income is spent in the consumer market for goods and services.

As might be expected, expenditures for food show the greatest dollar advances, totalling more than $4 billion in additional outlay at the $80 billion income level. Large dollar gains are also shown for housing, and fairly large gains for household operation, clothing, and automobile expenditures. Automobile, furnishings, and recreation show the greatest proportionate gains among consumption items, with food and transportation other than automobile showing the smallest percentage gains. It is also interesting to note that nine of the categories of disbursement (housing, household operation, clothing, automobile, medical care, recreation, furnishings, education, and "other items") show greater dollar gains between $70 and $80 billion total income, than they do between $60 and $70 billion incomes. For these categories there would seem to be no tendency for the rate of expansion of consumer demand to fall off, at least within the limits of the total incomes studied here. However, for the remaining five categories, and for all consumption items combined, the expansion with the second $10 billion of additional income is slightly less than with the first $10 billion.

The most marked effect upon disbursements of increasing total incomes to $70 and $80 billion under the previous assumption that proportionate distribution of income remained as in 1935–36 was the rapid increase in savings. It will be recalled from the discussion in Section 2 above that savings increased nearly $6 billion, or almost 100 percent, with a 33⅓ percent increase in total income. Under the assumption that differences in income are distributed equally among all consumer units, both the amount and the proportion saved are significantly less than the above figures. Even so, savings increase relatively more rapidly than income. In dollar figures the increase in savings amounts to about $1.9 billion with each $10 billion increase in total income. In percentages this means that savings increase about 31 percent over the amount of savings at the $60 billion income level with each additional 16⅔ percent increase in total income, or a total of 62 percent with a 33⅓ percent increase in income. Thus, the total volume of savings at the $80 billion income level almost reaches $10 billion, or better than 12 percent of total income, as compared with about $6 billion or 10 percent in 1935–36.

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[3] For the mathematical basis of this statement and a more detailed explanation of the character of this and all other assumed distributions, see Section 5 below.

TABLE 6C.—*Disbursements of American consumers, assuming three sizes of total consumer income with equal distribution of each $10 billion addition to income* [1]

Category of disbursement [2]	Aggregate disbursements (in millions) with total consumer income of—			Increases in disbursements (in millions) with increase in total consumer income from—		Percentage increases in disbursements with increase in total consumer income from $60 billion to—	
	$60 billion (1935–36 distribution)	$70 billion (equal distribution of difference)	$80 billion (equal distribution of difference)	$60 billion to $70 billion	$70 billion to $80 billion	$70 billion	$80 billion
Current consumption:							
Food	$17, 013	$19, 150	$21, 078	$2, 137	$1, 928	12. 6	23. 9
Housing	9, 597	10, 907	12, 222	1, 310	1, 315	13. 7	27. 4
Household operation	5, 355	6, 177	7, 004	822	827	15. 4	30. 8
Clothing	5, 327	6, 219	7, 122	892	903	16. 7	33. 7
Automobile	3, 847	4, 680	5, 610	833	930	21. 7	45. 8
Medical care	2, 242	2, 612	2, 999	370	387	16. 5	33. 8
Recreation	1, 668	1, 995	2, 344	327	349	19. 6	40. 5
Furnishings	1, 447	1, 738	2, 044	291	306	20. 1	41. 3
Personal care	1, 044	1, 201	1, 353	157	152	15. 0	29. 6
Tobacco	982	1, 142	1, 290	160	148	16. 3	31. 4
Transportation other than auto	888	995	1, 091	107	96	12. 0	22. 9
Reading	555	634	710	79	76	14. 2	27. 9
Education	512	604	706	92	102	18. 0	37. 9
Other items	307	358	411	51	53	16. 6	33. 9
All consumption items	50, 784	58, 412	65, 984	7, 628	7, 572	15. 0	29. 9
Gifts and personal taxes [3]	3, 113	3, 604	4, 128	491	524	15. 8	32. 6
Savings	6, 103	7, 984	9, 888	1, 881	1, 904	30. 8	62. 0
All items	60, 000	70, 000	80, 000	10, 000	10, 000	16. 7	33. 3

[1] Assuming same prices and spending habits as in 1935–36. Each one of the 39,458,000 families and single individuals is assumed to receive approximately $253 of each $10 billion increase in total consumer income.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

Effect on Disbursements at Different Income Levels

It is not sufficient, however, to show the effects of differences in size and distribution of income only in terms of aggregate disbursements of all of the Nation's consumers. The aggregate figures thus obtained may obscure or cover up differential effects of genuine importance upon consumer disbursements at different income levels. Moreover, it must be remembered that consumers at different income levels react differently to changes in their income status.

In table 4C in Section 2 above, it was shown that assuming a 1935–36 proportionate distribution and a $70 billion income, the lower third of the Nation spends 31 percent of its share of the $10 billion additional income for food and saves 12 percent. The upper third, on the other hand, spends only 10 percent of its share of the increase for food and saves as much as 36 percent. Since the upper group receives nearly two-thirds of the total increase in income, it has a dominant effect on the combined figures for all of the Nation's consumers, and the national aggregates accordingly show only 15 percent of the additional $10 billion devoted to food and 28 percent to savings.

When we assume that differences in income are distributed equally among all families and single individuals, the proportion of the $10 billion increase spent by all consumer units for food is 21 percent and the proportion saved is 19 percent, as table 6C indicates. Again, these figures do not tell the whole story. The lower third of the Nation spends 30 percent of its share of the increase for food and saves 14 percent. These figures differ very little from those given above, although the additional income received by the lower third is more than three times as much as under the 1935–36 distribution, and although the additional income is distributed differently to consumers within this third. The figures for the upper third, however, show greater variation. Expenditures for food take 13 percent instead of 10 percent of the additional income, and savings take less than 28 percent instead of 36 percent, because the upper third receives only one-third instead of two-thirds of the $10 billion increase in total income, and because this additional income goes more largely to consumers at the lower end of the upper third. These differences, combined with the fact that each third of the Nation under these assumptions has equal influence on the percentage figures for all consumers, result in the rather substantial increase of six points in the national figure for food as compared with the previous assumptions—from 15 to 21 percent—and a very marked drop in the savings figure—from 28 to 19 percent.

The aggregate figures shown in table 6C obscure the real situation in another direction also; that is, in the extent of the effect of income increases upon the level of living of the various income groups. Under our assumption that all consumer units share equally in income increases, each third, as indicated above, receives $3,333 million of a $10 billion increase in total income. Of this sum the lower third spends $998 million for food and the upper third $435 million. For the lower third this amount represents a 32 percent increase in its expenditures for food over the amount spent with a $60 billion income distributed as in 1935–36, while for the upper third the percentage increase in food expenditures is only five percent. Similarly, the lower third saves $480 million and the upper third $921 million of their respective shares of the income increases. Yet its much smaller increase in savings enables the lower third to cut its net deficit by 39 percent, while the upper third increases its total savings only 12 percent. Thus, in both cases the lower third has improved its position considerably more than the upper third. Viewed in this light, it can be seen that increases in income have quite different effects upon the consumption status of the various income groups.

Assuming Increases in Incomes of Poorest Groups

The second set of assumptions considered in this section increases the share of income going to the poorest group by raising the floor of incomes and improving the incomes of many consumers immediately above the assumed minimum level, without changing the amount of income going to the higher income levels. In this latter respect, this method of distributing differences in income differs from the first assumption presented above. Thus, with an increase in size of income from $60 billion to $70 billion, it is assumed that the incomes of all families and single individuals are raised to a minimum of $750, and that the remainder of the additional $10 billion is distributed to the three income levels between $750 and $1,500. With a further $10 billion increase, from $70 billion to $80 billion, it is assumed that the floor of income is raised to $1,250—the income level at which average net deficits no longer appear—and that the remaining increment is assigned to the three income levels from $1,250 to $2,000.

To prepare these distributions, the $60 billion income with the 1935–36 proportionate distribution was again used as a basis. As table 5C indicates, about 31 percent of all families and single individuals have incomes under $750 with this basic distribution, and an additional 37 percent receive between $750 and $1,500. The assumed distribution of $70 billion, therefore, brought 68 percent of all consumer units within the income levels of $750 to $1,500, with approximately 17 percent in the lowest level and 26 percent in each of the two higher levels. Only $4 billion of the assumed $10 billion increase in total income was required to bring all consumer units to a minimum income of $750; and the remaining $6 billion was used to raise incomes between $750 and $1,500.

With the $80 billion assumed distribution the floor of incomes was raised an additional $500, bringing about 81 percent of all consumer units within the $1,250 to $2,000 level, with about 33 percent in each of the two lower levels and half as many in the $1,750 to $2,000 level. At the $80 billion income level it was necessary to use only $13 billion of the assumed $20 billion increase to raise all incomes to a minimum of $1,250. The remaining $7 billion was then apportioned among consumer units between $1,250 and $2,000 incomes.[4]

The distribution of consumer units by income level under these assumptions are shown in columns 4 and 5 of table 5C. When compared with the 1935–36 distribution in column 1, it will be seen that the proportions of consumer units remain unchanged above $1,500 at the $70 billion income level and above $2,000 at the $80 billion income level. The concentration of consumer units at the three lowest income levels is merely the arithmetic outcome of the particular assumptions made. Arbitrary as these distributions obviously are, they should serve to illustrate the effects upon disbursements of increasing the purchasing power of the lower income groups, assuming all other factors to remain unchanged.

Effect on Aggregate Disbursements

The effects upon aggregate disbursements of the particular distributions considered in the present discussion are shown in table 7C. The figures for savings are particularly significant. In spite of the fact that all of the hypothetical increases in income are given to the lower income groups where savings are negative or very small, the results show that total net savings increase 20 percent when total consumer income increases one-sixth, and 48 percent when income increases one-third. The latter figure compares with a 96 percent increase in savings with the 1935–36 distribution of income, and with a 62 percent increase in savings when the increases in income are distributed equally. The total volume of savings at the $80 billion level is exactly $9 billion, or about 11 percent of total income. Since the incomes of the top income groups remain unchanged, their total savings remain the same. Therefore the relatively rapid increase in savings is largely accounted for by the fact that net deficits are wiped out at the lower income levels.

The bulk of the dollar increases in consumer demands appear for food, housing, household operation, clothing, and automobile expenditures. These five categories together account for about 66 percent of the $10 billion increase from $60 billion to $70 billion, and about 60 percent of the second $10 billion increase to $80 billion. In terms of relative increases in expenditures, automobile, furnishings, and recreation again show the largest gains, the first two advancing 47 percent and the third 42 percent with a 33⅓ percent increase in income. Tobacco, medical care, and clothing also advance somewhat more rapidly than income, while food and transportation other than automobile continue to show the smallest percentage increases.

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[4] For further explanation, see section 5 of this appendix.

TABLE 7C.—*Disbursements of American consumers, assuming three sizes of total consumer income with distribution of each $10 billion addition to income to the poorest groups* [1]

Category of disbursement [2]	Aggregate disbursements (in millions) with total consumer income of—			Increases in disbursements (in millions) with increase in total consumer income from—		Percentage increases in disbursements with increase in total consumer income from $60 billion to—	
	$60 billion (1935–36 distribution)	$70 billion (income floor of $750)	$80 billion (income floor of $1,250)	$60 billion to $70 billion	$70 billion to $80 billion	$70 billion	$80 billion
Current consumption:							
Food	$17, 013	$19, 718	$21, 620	$2, 705	$1, 902	15. 9	27. 1
Housing	9, 597	11, 001	12, 340	1, 404	1, 339	14. 6	28. 6
Household operation	5, 355	6, 237	7, 015	882	778	16. 5	31. 0
Clothing	5, 327	6, 226	7, 132	899	906	16. 9	33. 9
Automobile	3, 847	4, 570	5, 635	723	1, 065	18. 8	46. 5
Medical care	2, 242	2, 602	3, 059	360	457	16. 1	36. 4
Recreation	1, 668	1, 985	2, 366	317	381	19. 0	41. 8
Furnishings	1, 447	1, 770	2, 126	323	356	22. 3	46. 9
Personal care	1, 044	1, 220	1, 369	176	149	16. 9	31. 1
Tobacco	982	1, 189	1, 353	207	164	21. 1	37. 8
Transportation other than auto	888	1, 016	1, 113	128	97	14. 4	25. 3
Reading	555	650	717	95	67	17. 1	29. 2
Education	512	584	677	72	93	14. 1	32. 2
Other items	307	359	422	52	63	16. 9	37. 5
All consumption items	50, 784	59, 127	66, 944	8, 343	7, 817	16. 4	31. 8
Gifts and personal taxes [3]	3, 113	3, 556	4, 056	443	500	14. 2	30. 3
Savings	6, 103	7, 317	9, 000	1, 214	1, 683	19. 9	47. 5
All items	60, 000	70, 000	80, 000	10, 000	10, 000	16. 7	33. 3

[1] Assuming same prices and spending habits as in 1935–36. With the first $10 billion increase in total consumer income, it is assumed that the incomes of all families and single individuals are raised to a minimum of $750 and that the remainder of the additional income is distributed to the three income levels between $750 and $1,500. With the second $10 billion increase, it is assumed that all incomes are raised to a minimum of $1,250 and that the remaining income is distributed to the three levels between $1,250 and $2,000.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

The figures presented above refer to aggregate disbursements and savings of all consumer units. It should be remembered, however, that not all of the Nation shared in the increases in expenditures under the present assumptions. In fact, all of the increases in disbursements at $70 billion were confined to consumer units with incomes below $1,500, and at $80 billion to families and single individuals with incomes below $2,000. In other words, the $2.7 billion increase in expenditures for food with a $10 billion increase in income goes almost entirely to the lower two thirds of the Nation, and, to show the full effect of the differences, should be added to the $8.4 billion that the lower two-thirds spent for food in 1935–36—giving a 32 percent increase in their expenditures for this category, as compared with the 16 percent figure shown for the Nation as a whole. The same reasoning holds true, of course, of the increases in disbursements for all other categories. Thus, although the increases in expenditures of all consumer units under this assumed distribution of income may appear to be less marked than might have been expected, the effect on the disbursements of the lower income groups is much more significant.

Assuming Distributions Such That Percentage of Income Saved Remains Constant

It appears from the results given above and in Section 2 that the dominant difference in consumer outlays to be expected from a rise in total consumer income is a disporportionate expansion in the volume of consumer savings, as long as no shift in income is made from the higher to the lower income groups. Hence, it is of interest to consider how consumer outlays are affected if most of the increases in total income are diverted to consumption channels rather than to savings.

The Assumptions Made

In 1935–36 the proportion of income saved was about 10 percent with a total volume of savings of approximately $6 billion. This percentage figure for savings, therefore, has been arbitrarily adopted as the basis for the third set of assumed income distributions considered in this section. Proportionate distributions of income have been prepared such that the percentage of income saved remains constant at 10.2 percent as the size of total income varies. This figure represents the percent of savings at the $60 billion income level, with the same proportionate distribution as in 1935–36.[5] The same three sizes of total consumer income have been used as were employed in the two preceding types of distribution—$60, $70, and $80 billion.

In order to hold the proportion of income saved constant at these levels, it was necessary that the incomes of both the lower and the upper income groups move progressively toward the average or mean income—that is, become progressively more equal—with each increase in the size of total consumer income. One of the most interesting findings in this set of calculations is the extent of the movement toward equal income distribution that is necessary to keep the percent of income saved constant at the assumed levels. As can be seen in table 5C, the assumed distribution of the $80 billion income results in a more drastic movement toward equality than does that of the $70 billion income.

These assumed income distributions, it must be emphasized again, are purely illustrative and imply no judgment whatever as to the desirable distribution of incomes or the desirable level of consumer savings. They serve merely to indicate the goods and services that consumers would buy if only a fixed proportion of the successive increases in total consumer income is saved, while most of the increase is allocated to the satisfaction of current consumer wants.

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[5] See table 2C in the preceding section. Actually total consumer savings in 1935–36 amounted to 10.1 percent of total consumer income. The difference is accounted for by the fact that total consumer income in 1935–36 was slightly under $60 billion. The savings figures in the year 1935–36 also should be interpreted with reference to the position of that year in the business cycle. See above, section 2, footnote 3.

The Procedures Followed

It will be remembered that in the calculations in Section 2 the proportion of the total income received by a given proportion of consumer units was held constant when the $50, $60, $70, and $80 billion incomes were distributed. Now, if the percentage of income saved is to be held constant as total income varies, the shares of total income must be distributed more equally to all groups. Since the higher income groups save a much larger portion of their incomes than the lower income groups, and are responsible for a much larger part of the total savings figure, there must be a shift in incomes from the high to the low income groups.

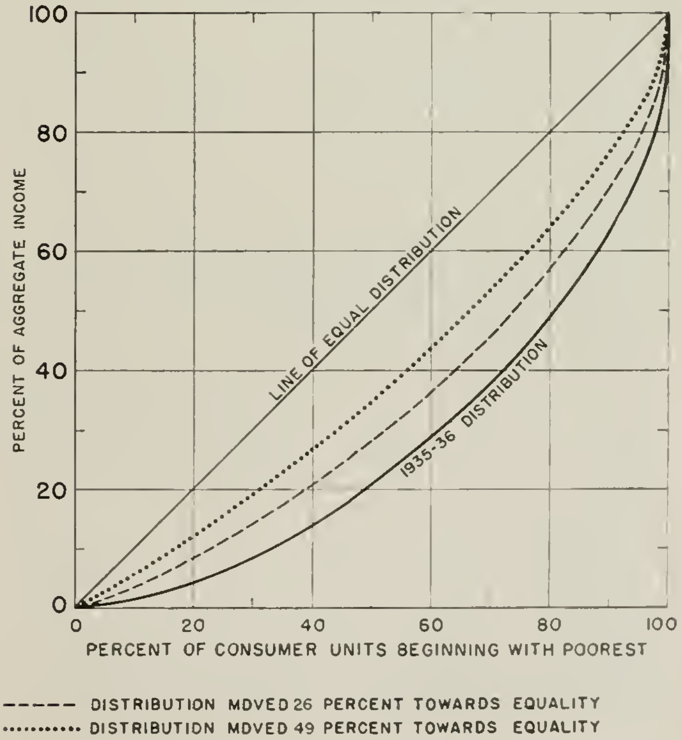
Suppose, for example, that we are considering tenths of the Nation. With absolute equality of income distribution each tenth would have 10 percent of the total consumer income. Actually—as was indicated above—the lowest tenth of consumer units received about two percent of the aggregate income in 1935–36, and the highest tenth 36 percent, with the intermediate tenths receiving proportions between these two extremes. If the proportionate distribution of income is assumed to become, say, 50 percent more equal, the percent of income received by each decile is assumed to move half way toward 10 percent from the percent shown for that decile in 1935–36. Thus, the lowest decile would receive about six percent of total consumer income instead of two, and the highest decile 23 percent instead of 36 percent. The same procedure could, of course, be followed not only for tenths of the Nation but for twentieths, fiftieths, hundredths or any other fraction.

The Lorenz curve.—It is also possible to show any desired change in the proportionate distribution of income by using a smooth curve known as the Lorenz curve. From this curve, shown in chart 5C, it is possible to read the proportion of total income held by any proportion of the Nation's consumers. The horizontal axis on the diagram has a scale which runs from 0 to 100 and measures the percentage of consumer units beginning with those having the lowest incomes. The vertical scale also runs from 0 to 100 and measures percentage of total income received.

A distribution of consumer units by income level is represented on this chart by a curve so drawn that at any point on it the vertical coordinate gives the percentage of total income received by the percentage of consumer units shown by the horizontal coordinate. Thus with the 1935–36 proportionate distribution (shown by a heavy solid line), about 4.5 percent of total income was held by the lowest 20 percent of the consumer units and about 14.5 percent by the lowest 40 percent. For all of the distributions the curve begins at the point "0, 0" since 0 percent of the consumer units have 0 percent of the income, and ends at the point "100, 100" since 100 percent of the consumer units have 100 percent of the income. If there is complete equality (all consumer units having the same income) the curve becomes the diagonal straight line connecting these two points—the line of equality, shown in the chart as a light solid line. In all other cases the curve is below the line of equality, and the more unequal the distribution, the farther it is below this line.

In moving half way toward equality by the method outlined above, the Lorenz curve moves half way vertically from the 1935–36 curve toward the line of equality. From this curve it is then possible to find, by graphical methods, the distribution of consumer units by income level which corresponds to this new proportionate distribution of income.

It can be shown mathematically that the new distribution by income level obtained by assuming a movement of the Lorenz curve half way toward the line of equality is such that every consumer unit has had its income moved half way toward the mean income



ASSUMED PROPORTIONATE DISTRIBUTIONS OF TOTAL CONSUMER INCOME IN RELATION TO DISTRIBUTION IN 1935-36

BASED ON TABLE 15C

CHART 5C

of all consumer units.[6] Similarly, an assumption of a movement one-quarter of the way toward complete equality results in moving every income one-fourth of the way toward the mean income of all consumer units. Thus, the method actually used in determining the assumed income distributions involves merely simple arithmetic interpolation.

The Distributions of Income Resulting From the Assumptions

The $60 billion income distributed as in 1935–36 is the base for the other distributions in this set and determines the percent of income saved which the other distributions must produce. In order that a $70 billion income should produce the same percentage of income saved as with the 1935–36 distribution of $60 billion, it was found that the distribution had to be moved 26 percent of the way toward complete equality. That is, each proportion of the Nation's consumer units must receive a share of total income 26 percent nearer its pro rata share than was the share actually received by it in 1935–36. Similarly, with an $80 billion total consumer income the necessary movement toward equality in order to hold the percent of income saved constant is 49 percent.

The Lorenz curves based on the assumption that the proportion of income saved is held constant with $70 and $80 billion incomes are shown in chart 5C, together with the curve for the proportionate distribution of income existing in 1935–36. The distributions of consumer units by income level on which these curves are based are shown in the last two columns of table 5C. The distributions are in percentage form, and can be compared with the $60 billion income distributed as in 1935–36 shown in the first column of the table.[7]

It will be noted that, at the $70 and $80 billion income levels, respectively, there are almost no consumer units with incomes below $500 and $1,000 when the percentage of income saved is held constant. This is so because, with the $70 billion income, a movement 26 percent toward the mean income of $1,774 brings the incomes of consumer units having zero incomes in 1935–36 to $468.[8] Similarly, at the $80 billion income level, a movement 49 percent toward the mean income of $2,027—the movement now required to hold the percentage of savings constant—brings the zero incomes to $989. It will also be noted that the assumptions regarding savings result in a marked concentration of consumer units in the income intervals between $1,000 and $2,500. With the $70 billion income, 64 percent of all families and single individuals have incomes within these intervals; while with the $80 billion income, fully 85 percent of the Nation's consumer units are concentrated between these two incomes. On the other hand, with the $60 billion income distributed as in 1935–36, only 43 percent of all consumer units are found within this income range, while 46 percent have incomes below $1,000.

These results, while essentially a step toward our final result—the allocation of income among the various categories of disbursements under different assumed distributions—are sufficiently striking to merit attention in their own right. In order that the proportion of income saved remain constant when an income of $60 billion increases by 16⅔ percent, it is necessary that the distribution of income move 26 percent of the way toward complete equality. Similarly an increase of 33⅓ percent in total consumer income requires a movement 49 percent of the way toward complete equality. And these movements, in turn, require not only the allocation of all of the additional income to the lower income groups, but also an absolute decrease in the number of consumer units in the higher income levels—with the 49 percent movement toward equality, a decrease in the number at all income levels above $4,000.[9]

Changes in size of total income of the order of magnitude considered in this part of the report have not infrequently occurred in the past within fairly short periods. But it is, of course, improbable that the degree of inequality of income has undergone changes approaching the magnitudes assumed even over long periods of time. Even the exceedingly crude figures available on income distribution in earlier years would hardly have failed to reflect changes of this order of magnitude.

Effect on Aggregate Disbursements

The effects of these assumed income distributions upon the aggregate disbursements of the Nation's consumers are shown in table 8C. The figures are again arranged so that comparisons can be made with a $60 billion income distributed as in 1935–36.

In the discussion of disbursements there is no need to consider the savings figures, since they are artifically pegged at the specified ten percent level. With both the $70 and $80 billion incomes, some expansion appears in the dollar outlay for every consumption category. Total expenditures for clothing move ahead of those for household operation; otherwise the ranking of the categories of consumption remains as it was in 1935–36.

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[6] See Section 5 below.

[7] The percentage share of each tenth of the Nation's consumer units in aggregate consumer income under each of the assumed distributions considered in this section is shown in table 15C.

[8] It has been assumed throughout appendix C that there were no negative incomes in 1935–36. Data from the Study of Consumer Purchases indicate that this was not the case, but, with the exception of farmers in the drought-stricken dust bowl, negative incomes were sufficiently rare in 1935–36 that they can be neglected entirely with very little effect on the national estimates. The percentage movements toward equality are not exactly 26 and 49 percent, respectively, and therefore the minimum incomes shown are not precisely 26 percent of $1,774 and 49 percent of $2,027.

[9] For a comparison of these distributions with the others considered in this section, see the concluding discussion in Section 5 of this appendix.

TABLE 8C.—*Disbursements of American consumers, assuming three sizes of total consumer income with proportionate distributions such that percentage of income saved remains as in 1935–36* [1]

Category of disbursement[2]	Aggregate disbursements (in millions), assuming distribution of total consumer income—			Percentage of aggregate disbursements, assuming distribution of total consumer income—		
	As in 1935–36 with $60 billion income	Such that percentage of income saved remains constant with income of—		As in 1935–36 with $60 billion income	Such that percentage of income saved remains constant with income of—	
		$70 billion	$80 billion		$70 billion	$80 billion
Current consumption:						
Food	$17,013	$19,649	$21,895	28.4	28.1	27.4
Housing	9,597	11,054	12,525	16.0	15.8	15.7
Household operation	5,355	6,253	7,139	8.9	8.9	8.9
Clothing	5,327	6,283	7,258	8.9	9.0	9.1
Automobile	3,847	4,731	5,874	6.4	6.7	7.3
Medical care	2,242	2,643	3,097	3.7	3.8	3.9
Recreation	1,668	2,009	2,394	2.8	2.9	3.0
Furnishings	1,447	1,792	2,183	2.4	2.6	2.7
Personal care	1,044	1,227	1,401	1.7	1.8	1.8
Tobacco	982	1,185	1,370	1.6	1.7	1.7
Transportation other than auto	888	1,001	1,094	1.5	1.4	1.4
Reading	555	649	733	.9	.9	.9
Education	512	588	676	.9	.8	.8
Other items	307	362	422	.5	.5	.5
All consumption items	50,784	59,426	68,061	84.6	84.9	85.1
Gifts and personal taxes [3]	3,113	3,454	3,802	5.2	4.9	4.7
Savings	6,103	7,120	8,137	10.2	10.2	10.2
All items	60,000	70,000	80,000	100.0	100.0	100.0

[1] Assuming same prices and spending habits as in 1935–36. Savings have been held constant at 10.2 percent since this was the figure for a $60 billion consumer income distributed as in 1935–36. See table 2C. The percentage figure for savings at $60 billion income differs slightly from the estimated figure for 1935–36, shown in table 7, because total consumer income in that year was slightly under $60 billion.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

Perhaps the most striking fact revealed by this set of calculations is the relative constancy of the percentage allocation of aggregate disbursements at all three levels of total income. For no category and at no level of total income does the percentage of aggregate disbursements vary more than one point from the 1935–36 figures. Percentage disbursements for food, housing, transportation other than automobile, education, and gifts and personal taxes show slight tendencies to decline as income increases, while all others, except household operation, reading, and "other items," take slightly increasing shares of the total income.

The percentage differences in disbursements are shown in table 9C. Compared with the $60 billion total income with the 1935–36 proportionate distribution the percentage increases in expenditures for furnishings and automobile stand out prominently. With an increase of 16⅔ percent in total income, expenditures for these two categories increase 24 and 23 percent respectively; with a 33⅓ percent increase in income, automobile and furnishings expenditures increase over 50 percent each. These results are doubly interesting when it is remembered that these categories consist largely of durable goods. On the other hand, food and transportation other than automobile, which contain negligible amounts of durable goods, as well as gifts and personal taxes, increase less rapidly than does income.

TABLE 9C.—*Use of each $10 billion difference in total consumer income and percentage differences in disbursements, assuming three sizes of income with proportionate distributions such that percentage of income saved remains as in 1935–36* [1]

Category of disbursement [2]	Increases in disbursements (in millions) with increase in total consumer income from—		Percentage increases in disbursements with increase in total consumer income from $60 billion to—	
	$60 billion to $70 billion	$70 billion to $80 billion	$70 billion	$80 billion
Current consumption:				
Food	$2,636	$2,246	15.5	28.7
Housing	1,457	1,471	15.2	30.5
Household operation	898	886	16.8	33.3
Clothing	956	975	17.9	36.2
Automobile	884	1,143	23.0	52.7
Medical care	401	454	17.9	38.1
Recreation	341	385	20.4	43.5
Furnishings	345	391	23.8	50.9
Personal care	183	174	17.5	34.2
Tobacco	203	185	20.7	39.5
Transportation other than auto	113	93	12.7	23.2
Reading	94	84	16.9	32.1
Education	76	88	14.8	32.0
Other items	55	60	17.9	37.5
All consumption items	8,642	8,635	17.0	34.0
Gifts and personal taxes [3]	341	348	11.0	22.1
Savings	1,017	1,017	16.7	33.3
All items	10,000	10,000	16.7	33.3

[1] Assuming same prices and spending habits as in 1935–36. Savings have been held constant at 10.2 percent since this was the figure for a $60 billion consumer income distributed as in 1935–36. See table 2C. The percentage figure for savings at $60 billion income differs slightly from the estimated figure for 1935–36, shown in table 7, because total consumer income in that year was slightly under $60 billion.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

Use of Each $10 Billion Difference in Income

The allocation of each $10 billion difference in income among the various types of outlay is also presented in table 9C. Both columns of figures indicate the rather large dollar shares of expenditures for food, with housing accounting for the next largest dollar volume of additional expenditures. Food claims $2.6 billion as income moves from $60 to $70 billion, and $2.2 billion more as income advances to $80 billion. Food and housing together account for about 41 percent of the first increment of $10 billion and over 37 percent of the second.

The declining share of successive income increments going to food is in contrast to the rising share allocated to automobile expenses. Disbursements for all other categories show more moderate tendencies to rise or fall. In neither set of figures are the shares allocated to the various categories entirely proportionate to the aggregate expenditures in 1935–36 shown in table 8C above. In both sets, clothing receives a slightly larger share of the increase in income than does household operation. Similarly, furnishings receive a larger share than recreation; and tobacco slightly more than personal care.

We have considered above two sizes of total consumer income and a variety of types of proportionate distribution of income, in order to reveal the general direction and magnitude of differences in national consumption that might appear with differences in these two important economic factors. It should be needless to repeat that there is no intention to present these figures as predictions of what would happen if the assumed income conditions prevailed. Too many factors affecting consumption have been left untouched to permit using the data in this manner. Nor is there any intention to imply that the various assumed distributions of income are either desirable or undesirable, feasible or impossible. The results of the calculations are of value, however, in defining a little more clearly the character and scope of some of the problems revolving around the way the national income is distributed, and in illustrating one technique of approach to the study of these problems.

SECTION 4. EFFECT OF DIFFERENCES IN PROPORTIONATE DISTRIBUTION OF INCOME WITH SIZE OF INCOME CONSTANT

Estimates of variations in consumer expenditures and savings with differences in size of income alone, and in both size and distribution of income, are given in the preceding pages. Let us now consider the effect upon consumption of varying the proportionate distribution of income while holding size of total income constant.

The lack of data on the magnitude of year-to-year variations in income distribution makes it particularly difficult to appraise the importance of this factor in our economy, although there has been much speculation on the part of economists concerning the relationship of inequality of income to the business cycle, and to the formation of capital. It is not even known definitely whether the distribution has tended to be more or less equal in prosperous years than in depression years.

Since the consumer expenditure data presented in this report cover only a single year, they can throw no light on the character of the changes in income distribution that may occur in successive years. It is possible, however, to use the 1935–36 spending patterns developed in this study to calculate the extent to which given differences in the proportionate distribution of income would affect the consumption and savings of the Nation, assuming that all other conditions remain the same.[1] The effects of such differences can be seen by a comparison of the sets of calculations presented in the preceding section.

Use of $70 Billion Income With Different Income Distributions

The tables presented above in Sections 2 and 3 include figures for $70 billion and $80 billion incomes, each illustrated by four methods of distributing income. Since differences in the use of either of these sizes of income are very similar as the distribution of income moves toward greater equality, the discussion of the effect of differences in the proportionate distribution of income can be confined to one size of income—$70 billion.

The four assumed distributions of a $70 billion income have been presented in tables 1C and 5C. The most unequal of these distributions—namely, that with the same proportionate distribution of income as in 1935–36—shows 25 percent of all families and single individuals with incomes under $750, and 16 percent with incomes of $2,500 and over. Each of the other three distributions shows a smaller proportion of consumer units at the extremes of the income scale, and a correspondingly larger proportion at the intermediate incomes. When it is assumed that the additional income is distributed equally among all families and single individuals, 17 percent of all consumer units remain in the income levels below $750; when income is distributed so as to hold savings constant at 10 percent of total income, only nine percent of all consumer units remain under this level; and when all of the additional $10 billion is received by the poorest groups no consumer units have incomes below $750. Similarly, the proportion of consumer units with incomes of $2,500 and over drops to 14 percent, 13 percent, and 11 percent, respectively, with these assumed types of income distribution.

Differences in Aggregate Disbursements

The use of a $70 billion total consumer income under each of the four distributions has already been presented in tables 2C, 6C, 7C, and 8C. For two of the distributions—that assuming the 1935–36 proportionate distribution and that assuming the 1935–36 percentage figure for savings—the calculations are brought together in table 10C. Here it can be seen that despite the great difference in the two distributions, there occurs a transfer of only three percent of total income—$2.2 billion—from one group of categories to another. It should be remembered, however, that these national aggregates do not bring out the complete story of the effects of differences in the proportionate distribution of income upon consumption, since they conceal the very significant differences which occur among the various income groups. The differences in the way the three thirds of the Nation use a $70 billion income under the two assumed distributions considered here are discussed below.

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[1] For an explanation of the assumptions regarding other factors in the economy, see section 1 of this appendix.

Table 10C.—*Use of $70 billion consumer income, assuming two proportionate distributions of income* [1]

Category of disbursement [2]	Aggregate disbursements (in millions) assuming distribution of $70 billion income		Differences in disbursements between two distributions of $70 billion income	
	As in 1935–36	Such that percentage of income saved remains as in 1935–36 [3]	Amount (in millions)	Percent
Current consumption:				
Food	$18, 503	$19, 649	$1, 146	6. 2
Housing	10, 753	11, 054	301	2. 8
Household operation	6, 095	6, 253	158	2. 6
Clothing	6, 145	6, 283	138	2. 2
Automobile	4, 655	4, 731	76	1. 6
Medical care	2, 582	2, 643	61	2. 4
Recreation	1, 990	2, 009	19	1. 0
Furnishings	1, 687	1, 792	105	6. 2
Personal care	1, 170	1, 227	57	4. 9
Tobacco	1, 091	1, 185	94	8. 6
Transportation other than auto	985	1, 001	16	1. 6
Reading	617	649	32	5. 2
Education	626	588	−38	−6. 1
Other items	355	362	7	2. 0
All consumption items	57, 254	59, 426	2, 172	3. 8
Gifts and personal taxes [4]	3, 814	3, 454	−360	−9. 4
Savings	8, 932	7, 120	−1, 812	−20. 3
All items	70, 000	70, 000		

[1] Assuming same prices and spending habits as in 1935–36.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Savings have been held constant at 10.2 percent since this was the figure for a $60 billion consumer income distributed as in 1935–36. See table 2C. The percentage figure for savings at $60 billion income differs slightly from the estimated figure for 1935–36, shown in table 7, because total consumer income in that year was slightly under $60 billion.

[4] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

As table 10C indicates, savings, gifts and personal taxes, and education are the only categories showing decreases in total disbursements as income becomes more equally distributed. Savings account for almost five-sixths of the total decrease in disbursements, declining by $1.8 billion. Almost all of the remaining $400 million decrease comes from gifts and personal taxes, with education showing only a slight decline.

Food claims over half of the purchasing power set free by these three categories—advancing by $1.1 billion. The other categories, including housing, show only small increases in total outlay. None of these increases is as large as the decrease shown by gifts and personal taxes, for instance, although several of the consumption categories form a larger share of the Nation's budget.

The percentage increases in aggregate disbursements are also small. The largest are for tobacco, for furnishings, and for food, which increase by 9, 6, and 6 percent, respectively. The percentage decrease in savings is large—20 percent—and even that for gifts and personal taxes—over 9 percent—is larger than the percentage increase for any category.

For the other two distributions, an even smaller shift in disbursements occurs among the various categories. With the distribution assuming increases in the incomes of the poorest groups, savings decreases are only $1.6 billion, while the total amount of income transferred amounts to only $1.9 billion. And when the additional $10 billion is distributed equally among all consumer units, savings declines less than $1 billion, and decreases in outlays for gifts and personal taxes and for education bring a total shift in disbursements of less than $1.2 billion. Under both of these assumptions, food again claims more than half of the income shifted from the declining categories.

The general conclusion is thus clear. Even with very appreciable differences in the proportionate distribution of income, if the size of total consumer income is assumed not to change, and if other factors in the economy are assumed to remain unchanged, the allocation of total consumer outlays to the various classes of goods and services would not alter greatly. This result was perhaps to be anticipated, since the expansion in total outlays for some classes of items would necessarily have to be offset by a corresponding contraction in the outlays for other items. The greatest differences would appear in the smaller proportion of income devoted to savings and in the larger proportion spent on food, as the distribution of income departs from the 1935–36 pattern and becomes more equal.

Relation of Results to Average Spending Patterns

Just as in the discussion of the effect of differences in the size of income on the consumption and savings of the Nation, it seems well at this point to discuss the "why" as well as the "what" of the effects of differences in the proportionate distribution of income.

Increases Depend on Convexity of Income-Expenditure Graphs

It will be remembered that the size of total consumer income affects the amount of income allocated to any category in proportion to the slope of the income-expenditure graph for that category. These graphs were shown in charts 11 and 12. It can now be shown that the proportionate distribution of income affects aggregate disbursements for each category in proportion to the convexity of the income-expenditure graph.

As before, the simplest case would occur if the income-expenditure graph were a straight line. Falling back again on the hypothetical example of a straight-line graph for recreation, with a slope of 0.03, let us consider what would happen if, for example, the income of high-income groups declined by $1 billion and the income of low-income groups expanded by the same amount. Out of $1 billion so shifted the high-income consumer units would spend $30 million less for recreation—if we assume that they would adopt the spending pattern of the income level into which they move. By precisely the same reasoning, however, the low-income consumer units would increase their recreation expenditures by $30 million. The net result would be that no change at all would occur in the expenditure of the Nation as a whole for recreation.

In other words, for a category whose income-expenditure graph is a straight line—whether or not this straight line passes through the origin, that is, calls for zero expenditure at zero income—the aggregate expenditure by the Nation as a whole depends soley on the size and not at all on the distribution of total consumer income.

Now consider an income-expenditure graph which is concave upward, as is the case with savings. If the distribution of income were more equal, consumer units would move from both the high and the low income classes into income classes nearer the mean income. Since, however, the curve for savings is steeper at high than at low income levels, a comparatively large proportion of each $1 billion shifted from high income levels would be deducted from aggregate savings. On the other hand, a smaller proportion of the increase in income going to low-income consumer units would be added to the savings aggregates of these consumer units. The net result would be, therefore, a decrease in the volume of savings for the Nation as a whole.

If the income-expenditure graph is concave downward, as is the case with the graphs for all the categories of current consumption except education, precisely the reverse would occur. Increases in expenditures by low-income consumer units would outweigh decreases by those at the high incomes, and the national expenditure for the category would increase.

Application of These Principles

The reason for decreases in disbursements for savings, gifts and personal taxes, and education as the distribution of consumer income becomes more equal is thus made clear. These are the categories whose income-expenditure graphs are predominately concave upward. In the case of transportation other than automobile, the graph becomes concave upward only at very high income levels, where there are very few consumer units; this concavity is overbalanced by the convexity at the low and middle income levels.

The explanation of the relatively moderate increase in total disbursements for each of the categories except savings and food is also clear. These graphs are very nearly straight lines throughout the income levels where most of the consumer units and most of the aggregate income are found, while the graph for food is strikingly convex.

Differences in Disbursements Among Three Thirds of Nation

It is obvious that although differences in the proportionate distribution of income may not cause major differences in total consumer disbursements for a given category, they would have a tremendous effect on the well-being of particular groups of families and single individuals whose purchasing power has been improved. Total disbursements remain fairly constant only because large differences in disbursements at the different income levels tend to cancel each other. In order to throw some light on the variations among income groups, the differences in the disbursements of the three thirds of the nation assuming a $70 billion income with the two proportionate distributions already considered in this section are presented in table 11C. It should be remembered that the more equal of the two distributions—that holding the percentage of income saved constant at the 1935–36 figure—involves a movement 26 percent toward equality from the 1935–36 proportionate distribution.

The first three columns of this table show the differences in aggregate disbursements for each third of the Nation between the two assumed distributions. Thus, the lower third receives $4,255 million more income out of the $70 billion total income with the more equal of the two distributions, and spends $3,554 million more on current consumption. The last three columns show the percentage differences in disbursements between the two distributions with the $70 billion income distributed as in 1935–36 as the base.

The first significant fact revealed by table 11C is the marked increase in the aggregate disbursements of the poorest third for most of the categories when income is distributed so as to hold the percentage of income saved at the 1935–36 level. Particularly interesting is the large dollar increase of $1,236 million in food expenditures. Similarly, the increase in expenditures for housing approaches $600 million, while the dollar volume of the increases for the other categories are more moderate.

The percentage increases in disbursements by the lower third are perhaps even more significant. Automobile expenditures lead the list with an increase of 99 percent, while outlays for furnishings, recreation, and education all show increases of over 75 percent. In no case does the percentage increase in disbursements for a consumption category fall below 34 percent, and expenditures for all of the items of consumption combined increase by 44 percent.

TABLE 11C.—*Differences in disbursements of each third of Nation assuming a $70 billion total income with two proportionate distributions of income* [1]

Category of disbursement [2]	Differences in disbursements (in millions) with distribution such that percentage of income saved remains as in 1935–36 [3] compared with the 1935–36 distribution			Percentage changes in disbursements with distribution such that percentage of income saved remains as in 1935–36 [3] compared with the 1935–36 distribution		
	Lower third	Middle third	Upper third	Lower third	Middle third	Upper third
Current consumption:						
Food	$1,236	$367	$−458	36.2	6.3	−5.0
Housing	597	235	−531	36.3	7.9	−8.7
Household operation	380	137	−359	47.5	8.4	−9.8
Clothing	382	161	−405	53.6	10.3	−10.5
Automobile	259	171	−354	99.2	17.0	−10.4
Medical care	142	76	−156	47.0	11.6	−9.6
Recreation	121	66	−168	83.4	14.5	−12.1
Furnishings	124	61	−80	86.7	13.3	−7.4
Personal care	79	26	−48	45.7	7.7	−7.3
Tobacco	90	32	−28	57.0	9.2	−4.8
Transportation other than auto	56	20	−60	34.6	7.2	−11.0
Reading	41	13	−22	41.8	7.1	−6.6
Education	28	16	−82	75.7	14.5	−17.1
Other items	19	12	−24	47.5	13.2	−10.7
All consumption items	3,554	1,393	−2,775	43.9	8.7	−8.4
Gifts and personal taxes [4]	170	90	−620	78.7	14.1	−20.9
Savings	531	268	−2,611	(5)	279.2	−26.2
All items	4,255	1,751	−6,006	59.2	10.5	−13.0

[1] Assuming same prices and spending habits as in 1935–36.

[2] For explanation of items included in each category, see pp. 93–98.

[3] Savings have been held constant at 10.2 percent since this was the figure for a $60 billion consumer income distributed as in 1935–36. See table 2C. The percentage figure for savings at $60 billion income differs slightly from the estimated figure for 1935–36, shown in table 7, because total consumer income in that year was slightly under $60 billion.

[4] Taxes shown here include only personal income taxes, poll taxes, and certain personal property taxes. For further explanation, see p. 27.

[5] The percentage change in this case would be misleading since the base is negative. The net deficit of the lower third is reduced 47.8 percent.

The marked degree to which the percentage differences in total consumer disbursements conceal the differential effects upon the expenditures of the various income groups is revealed when these percentages are compared with those in the last column of table 10C. The total increase in expenditures for food, under the more equal distribution, is only six percent, while the lower third increases its expenditures by 36 percent. The total increase in expenditures for automobile is only 1.6 percent, while the lower third, as indicated above, increases its outlays for this category by 99 percent. Comparable figures for the other categories all reveal that the lower third increases its expenditures much more substantially than is apparent in the aggregate increases for all consumers.

Both the lower and the middle thirds substantially increase their savings. In fact, the percentage gain of the middle third—279 percent—is the highest in the table, while the lower third decreases its net deficit by 48 percent. Otherwise, the middle third increases its expenditures for all categories at a much more moderate rate than does the lower third. The percentage increase in outlays of the middle third for all consumption items is about 9 percent, as compared with 44 percent for the lower third. The increase in income for the middle third, and hence in total outlays, is almost 11 percent, while the income of the lower third increases by 59 percent.

It is interesting to note that while the disbursements of the upper third for all categories decline, the proportionate decreases are relatively less marked than are the increases in disbursements of the lower third. Moreover, the percentage decreases in disbursements of the top income group for current consumption are smaller than the decreases in outlays for gifts and personal taxes and for savings. While the decrease in expenditures for consumption goods and services is only 8 percent, outlays for gifts and taxes and for savings decline 21 percent and 26 percent, respectively. The decrease in the income of the upper third with the more equal distribution of income assumed, amounts, it will be noted, to about 13 percent. With the 1935–36 distribution this group received $46.1 billion or 66 percent of the $70 billion total income and with the more equal distribution considered, about $40 billion or 57 percent of the total income.

In interpreting these results, it should be pointed out once again that the findings presented in this section must be taken merely as an indication of the general nature of the differences in consumption that might occur with a substantial difference in the proportionate distribution of income from that prevailing in 1935–36. Like all of the estimates of differences in consumption presented in this appendix, those in this section are necessarily based on highly arbitrary and hypothetical assumptions. Thus, as was pointed out above, all factors other than the proportionate distribution of a $70 billion income were assumed to remain unchanged from 1935–36 conditions. If major changes in any of these other factors—prices, spending habits, taxes, the geographic or occupational distribution of the population—occurred at the same time as the assumed differences in proportionate distribution of income, the conclusions regarding the resulting differences in consumption might well be different from those presented here. Such factors can be included in an analysis of the effects of differences in the distribution of income on total consumer expenditures and on the welfare of various groups of consumers only when more adequate data relating to this important field of investigation become available.

SECTION 5. METHODS USED IN MAKING THE CALCULATIONS

The methods used in calculating the figures presented in this appendix have been briefly described in preceding sections. For some of the steps, however, a more detailed explanation is necessary for a full understanding of the procedures followed. These more detailed descriptions are presented in this concluding section.

Justification of the Use of a Single Set of Spending Patterns

The technique used in this study for estimating the aggregate expenditures of all of the Nation's consumers during a given year when the expenditures of only a sample of consumers are known has been described in Appendix B. Essentially it consists in breaking down the entire population into homogeneous groups, or "cells," estimating the average consumption pattern of each group and the number of consumer units in the entire population belonging to this group, multiplying the former by the latter to obtain the aggregate expenditure on each category by consumers in each group, and totalling these aggregates for all groups.

The groups in the Study of Consumer Purchases, which furnishes the sample data for the 1935–36 estimates presented in this report, were defined in a carefully arranged manner according to six basic criteria, as already described. The number of separate groups for which data were available totaled many thousand.

Estimates of national consumption under different assumptions as to the size and distribution of income could be obtained by the same procedure. The number of consumer units in each group would depend upon the particular conditions selected for study, although the average pattern in each group might be assumed the same as in 1935–36.

Actually, however, the calculations of differences in national consumption were obtained by distributing all consumer units among 16 income levels and using a single set of spending patterns—one set of average disbursements for all consumers at each income level.[1] The simplicity of this procedure is appealing, but its justification depends on whether or not it yields substantially the same results as if all consumer units were distributed, not only among the 16 income levels but among the many thousands of individual groups, and a separate pattern were used for each group.

Assumptions Involved in Combining Qualitative Groups

The spending pattern for all consumer units at each income level—the pattern used in obtaining the present estimates of differences in consumption—is a weighted average of the spending patterns of the component groups at that income level. It is thus affected both by the component spending patterns and by the weights used in combining them. It will remain the same when consumers' incomes are changed if no change occurs in the weights, that is, the relative frequencies of the separate groups, since the component spending patterns are assumed not to change. It will also remain the same if the spending patterns of the separate groups are identical, even if the relative frequencies vary.

In obtaining the assumed distributions of consumer units by income level, it seems reasonable to assume that there will be no differential effects among the various qualitative groups, so that, for example, wage earners and clerical workers at the same income level have their incomes changed in the same way. If this assumption is made, then the two cases in which the average spending pattern for all consumer units at each income level will not vary, regardless of how the distribution of consumer units is altered, may be stated as follows: (1) The percentage distributions of consumer units by income level are the same for the various qualitative groups, or (2) the spending patterns of the qualitative groups are identical at each income level.

We can now consider how much error is introduced by neglecting each of the five factors—region, type of community, color, occupation, and size of family. Although it is theoretically possible that any one of a group of factors can be safely eliminated while the whole group cannot, this possibility need not concern us greatly in the present instance. It occurs only in the case of very high correlations, which are not present in this case.

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[1] Instead of multiplying the number of consumer units by the average expenditure for each category at each income level, the aggregate income received by all consumers at each level was multiplied by the percentage use of income at that level in order that the total income of all consumers should add to a preassigned amount. This, however, is a technical point not affecting the discussion of the general method.

It has already been pointed out that expenditures on the broad categories of consumption usually vary to only a slight extent by occupational groups after all other factors are eliminated. Hence, occupation may be dropped as a control in obtaining estimates of differences in consumption, and it will not be considered further.

Tests Made

As regards the other factors, the evidence is not quite so conclusive, and tests have been carried out on all of them. These tests are summarized in table 12C. It should be noted, however, that the figures there shown understate the case for using a single consumption pattern in estimating differences in consumption, since the tests were made on food and savings, which are among the categories that vary most as between qualitative groups. The procedure used in making these tests may be illustrated by considering the test for regional differences. In order to control for all factors except region and income, the analysis was made on white families of 3–6 persons, in large cities, all occupations combined. There were five regions with 20 income levels for each. The aggregate expenditure on food and aggregate savings were obtained under three different distributions of income: (1) That in 1935–36, (2) that obtained by increasing the income of every family by one-third, and (3) that obtained by making the distribution 50 percent more equal.[2] The aggregate income was also obtained for each of the three distributions. The amount allocated to the combination of all categories except food and savings was obtained by subtracting the amounts spent on these categories from the aggregate income. The food and savings aggregates were obtained by two different methods for each of the three distributions, once by using 100 averages (one for each income level within each region) and once by using 20 averages (one for each income level with all regions combined). The aggregates for the 1935–36 distribution were, of course, the same except for rounding, and the differences in the other aggregates measure the error involved in not keeping the regional break for 3–6 person white families in large cities.

Tests of the same type were also made on the other controls—type of community, family size, and color.

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[2] The income of every family was moved halfway toward the mean income for all families in its own group, and then the group mean was moved halfway toward the mean income for all families in the United States ($1,622) by multiplying the income of every family by $\frac{M+1622}{2M}$, M being the group mean.

TABLE 12C.—*Tests on combinations of qualitative groups for calculating differences in national consumption* [1]

		Aggregate disbursements (in millions) with—				Percentage error with—			
Type of combination and category of disbursement	Total consumer income and distribution as in 1935–36	Total consumer income one-third greater than in 1935–36 [2]		Proportionate distribution of income moved halfway towards equality from 1935–36 distribution [2]		Total consumer income one-third greater than in 1935–36		Proportionate distribution of income moved halfway towards equality from 1935–36 distribution	
		Qualitative groups separate	Qualitative groups combined	Qualitative groups separate	Qualitative groups combined	Error as percent of aggregate	Error as percent of increase	Error as percent of aggregate	Error as percent of increase
Regional combination:									
Food	$1,589	$1,838	$1,839	$1,565	$1,567	0.05	0.4	0.13	−8.3
Savings	777	1,348	1,376	353	353	2.08	4.9	.00	.0
All other	4,402	5,869	5,840	3,741	3,747	−.49	−2.0	.16	−.9
Total disbursements	6,768	9,055	9,055	5,659	5,667				
Size of family combination:									
Food	91.9	106.4	106.9	90.3	90.4	.47	3.4	.11	−6.2
Savings	32.1	66.1	65.2	12.4	11.9	−1.36	−2.6	−4.03	2.5
All other	275.1	364.2	364.6	244.0	244.3	.11	.4	.12	−1.0
Total disbursements	399.1	536.7	536.7	346.7	346.6				
Type of community combination:									
Food	3,650	4,175	4,301	3,680	3,654	3.02	24.0	−.71	−86.7
Savings	1,623	3,164	3,028	1,046	1,094	−4.30	−8.8	4.59	−8.3
All other	10,426	13,622	13,632	9,286	9,247	.07	.3	−.42	3.4
Total disbursements	15,699	20,961	20,961	14,012	13,995				
Color combination:									
Food	523	608	615	528	536	1.15	8.2	1.52	160.0
Savings	112	275	266	62	49	−3.27	−5.5	−20.97	26.0
All other	1,341	1,782	1,784	1,310	1,307	.11	.5	−.23	9.7
Total disbursements	1,976	2,665	2,665	1,900	1,892				

[1] The tests for regional combinations were applied to the disbursements of nonrelief families of 3 to 6 persons living in large cities in each of the 5 geographic regions. They included only white families in the Southern and North Central regions and families in all color groups in the other 3 regions. The tests for size-of-family combinations were applied to all nonrelief families living in large cities in the Mountain and Plains region in each of 3 family-size groups—2 persons, 3 to 6 persons, and 7 or more persons. The tests for type-of-community combinations were applied to nonrelief families of 3 to 6 persons in the North Central region living in each of the 5 types of community—metropolises, large cities, middle-sized cities, rural nonfarm areas, and farms. For the first 3 of these types of community, the tests included white families only; for the other two types they included families in all color groups. The tests for color combinations were applied to nonrelief white and Negro families of 3 to 6 persons living in large cities in the Southern region.

[2] The total disbursement figures for the one-third increase in total consumer income are not exactly four-thirds of those for total disbursements in 1935–36 because of the use of the midpoint instead of the average income within each income interval. For the same reason the pairs of figures for total disbursements with a 50 percent movement toward equality are not identical; furthermore, these figures are lower than those under the 1935–36 distribution since the mean income of each group tested is moved toward the mean for all families. See footnote 2 above.

The results are presented in table 12C. The errors are expressed as percentages both of the aggregates and of the change in the aggregates from the figures in 1935–36.

Region and Size of Family.—For these two controls, the errors are very small as measured by absolute differences and by both kinds of percentages. This is due largely to the similarity of the income distributions, for there are sizable differences in consumption patterns both among regions and among different sizes of families. The results of these "spot" tests may be generalized to justify not keeping the various regions and family sizes separate in obtaining estimates of national consumption, since differences in the income distributions of the particular groups of families used in the tests are fairly typical of differences in the income distributions of families in different regions and families of different sizes throughout the Nation.

Type of Community.—The errors due to neglecting the type-of-community control are somewhat larger, but probably not seriously so. Savings are underestimated, while expenditures on food are overestimated when incomes are increased, and the various types of community are not kept separate. The reason for this is as follows: At a given income level savings decrease as urbanization increases, being largest for farm families and smallest in metropolises. The proportion of urban population increases with income, metropolis families being relatively more frequent at high than at low-income levels. In the weighted average for all types of community, therefore, the increase in savings as income increases is partly nullified by the increasing proportion of metropolis families. When all incomes are increased by one-third, the number of families at high-income levels increases, and those are the levels at which metropolis families are relatively more frequent. Hence, if at each income level a single figure for the average savings of families in all types of community is used, the pattern of metropolis families implicitly receives more weight than formerly, and the total volume of savings increases less than it would if the types of community were kept separate. Food expenditures increase as urbanization increases, and therefore behave in exactly the opposite way from savings.

Color.—The test for color group was made in large cities in the South, where Negro-white differences both in spending habits and in income distribution are greater than in the North. The error obtained, while sizable, is of course much greater than the error in the national figures due to omitting the color break.

Implications of Procedure Followed

In view of the minor character of most of the errors involved in the use of a single spending pattern at each income level, there seemed little to be gained by adopting the far more laborious method of using separate patterns for each qualitative group. It should be kept in mind, however, that the procedure followed implicitly assumes that changes in the size of income or its distribution are accompanied by shifts among the qualitative groups. If such shifts were eliminated, savings would increase even more sharply as total income increases than the figures presented suggest, and food expenditures would increase somewhat less. This is true because the groups having the largest proportion of high income families—large, white, metropolis families—are the groups which save less and spend more on food at a given income level.

The effect on the total consumption of all of the Nation's consumers, as the distribution of income becomes more equal, of keeping qualitative groups separate is not clear from the results presented here except that apparently no great differences would occur. The magnitude and even the direction of these differences may well depend upon the particular method chosen of moving families in different groups toward the mean.

The Lorenz Curve

The Lorenz curve shown in chart 5C has some very interesting and useful properties, and without repeating the definition given above, this subsection will deal with these properties insofar as is necessary to establish the theorems used in obtaining the assumed distributions of consumer units by income level.

First of all, it is clear that if the income of every consumer unit is increased in the same ratio, the percent of total consumer income going to each consumer unit remains unchanged, and since, as was seen from the definition in the text, it is percentage of income and not income itself that is graphed on the Lorenz chart, the Lorenz curve remains unchanged when all incomes are multiplied by a constant. Hence, while there is only one Lorenz curve corresponding to a given frequency distribution, there is a whole set of frequency distributions corresponding to a given Lorenz curve. In order that the frequency distribution shall be determined it is necessary to know, in addition to the Lorenz curve, the total number of consumer units and the total consumer income. In the assumed distributions used in this report the total number of consumer units is the same as the estimated number in 1935–36, namely, 39,458,000, so that only total consumer income needs to be specified in addition to the Lorenz curve.

Movements Toward Equality

We are now in a position to prove the theorem used in obtaining the distributions of consumer units with the percentage of income saved held constant. This theorem may be stated as follows:

Given a frequency distribution and the Lorenz curve corresponding to it, the new frequency distribution obtained by moving every family some proportion of the way from its income in the given distribution toward the mean income has, as its Lorenz curve, the curve obtained by moving the given Lorenz curve the same proportion of the way vertically toward the line of equality.

Consider the 10 percent (3,945,830) of consumer units with the lowest incomes. If all incomes are moved some proportion, say one-fourth, of the way toward the mean, these consumer units will still have the lowest incomes. The proportion of the total income going to each consumer unit will move one-fourth of the way toward the pro rata proportion, 1/39,458,300 of total income. The aggregate income of the entire 3,945,830 consumer units will thus move one-fourth of the way toward its pro rata proportion, one-tenth or 10 percent, of total income. Hence, the ordinate of the point on the Lorenz curve whose abscissa is 10 will move one-fourth of the way vertically toward 10, the point on the line of equality.

The same reasoning holds, of course, for any percentage of consumer units, not merely for 10 percent, and therefore for any point on the Lorenz curve. It also holds for any movement toward equality.

Equal Increments of Income

The Lorenz curve also serves as a convenient device for proving an important theorem in connection with the distributions of consumer units by income level obtained by increasing the income of every consumer unit by the same amount. This theorem may be stated as follows:

Given a frequency distribution with total consumer income T, the new frequency distribution obtained by increasing the income of every consumer unit by the same amount in such a way that total consumer income is increased to T' is the same distribution as that obtained by multiplying the income of every consumer unit by the ratio T'/T and then moving every income $\frac{T'-T}{T'}$ of the way toward the new mean income.

Total consumer income is clearly equal to T' in both distributions, in the first case by definition, and in the second because multiplying the income of every consumer unit by the ratio T'/T multiplies the total T by T'/T, giving T', while moving all incomes the same fraction of the way toward the mean leaves this total unchanged. Since the number of consumer units is the same in both cases, it need only be shown that the two Lorenz curves are the same.

As already shown above, the Lorenz curve remains unchanged when all incomes are multiplied by a constant, and moves uniformly toward the line of equality when all incomes are moved toward the mean. Hence, we have only to show that the Lorenz curve obtained by increasing every income by an equal amount in such a way that total income increases from T to T' can be obtained by moving the Lorenz curve $\frac{T'-T}{T'}$ of the way toward the line of equality. This may be surmised by considering the composition of the total income T'. It is made up of two parts, the original income T and the increment $T'-T$. The Lorenz curve of the increment is merely the line of equality, since every consumer unit receives the same amount of increase. It seems reasonable, therefore, that the Lorenz curve corresponding to the income T' should be an average of the Lorenz curve corresponding to the income T and the line of equality with the former given a weight of T and the latter a weight of $T'-T$. That this is actually the case may be shown by the following algebra:

Let x be any proportion of consumer units and y the aggregate income received by them before incomes are increased. If all incomes are increased by an equal amount in such a way that T increases to T', y becomes $y+x(T'-T)$. If all incomes are multiplied by T'/T and then moved $\frac{T'-T}{T'}$ of the way toward the new mean, y becomes first $\frac{T'}{T}y$ and then

$$\frac{T'}{T}y+\frac{T'-T}{T'}\left(xT'-\frac{T'}{T}y\right)=y+x(T'-T).$$

The Basic Income Distribution

In order to obtain the assumed distributions of consumer units by income level three steps were involved: (1) Finding the set of income intervals in the distribution of all consumer units in 1935–36 such that consumers in each interval will move into one of the 16 income intervals ("Under $250," "$250–$500," etc.) in the assumed distribution according to the laws just found for changes in total consumer income and the Lorenz curve, (2) computing by some interpolation procedure the number of families and single individuals in these income intervals in 1935–36, and (3) estimating the aggregate income held by consumers at each level in the assumed distribution.

For the sake of internal consistency among the assumed distributions, it was felt necessary to obtain every distribution directly from a basic distribution which should be precisely known—that is, such that the number of consumer units in any given income interval—not merely $250 intervals—can be determined. This basic distribution was obtained by two steps. First, the numbers of families in 32 income intervals under $100,000 were obtained by graphic interpolation [3] from the 24 income intervals shown in *Consumer Incomes in the United States*, table 2. Second, it was assumed that consumer units were evenly distributed throughout these narrower intervals.

The relative lengths of the intervals were chosen so as to minimize the error introduced by the second assumption. Where the frequency distribution was relatively steep and the aggregate income in a given income interval large, the income intervals were made short.

The number of consumer units above $100,000 and their aggregate income were carried over from the report on consumer incomes without any breakdown, since no interpolation above this level was needed for any of the distributions assumed. In all, therefore, there were 33 income intervals in the basic income distribution.

TABLE 13C.—*Distributions of consumer units and of aggregate income received, by income level, 1935–36*

Distribution from report on consumer incomes [1]			Basic distribution used in estimating differences in national consumption		
Income level	Number of consumer units	Aggregate income (in thousands)	Income level	Number of consumer units (in thousands)	Aggregate income (in millions)
Under $250	2,123,534	$294,138	$0–$125	833	$52
			$125–$250	1,291	242
$250–$500	4,587,377	1,767,363	$250–$500	4,587	1,720
$500–$750	5,771,960	3,615,653	$500–$750	5,772	3,608
$750–$1,000	5,876,078	5,129,506	$750–$1,000	5,876	5,142
$1,000–$1,250	4,990,995	5,589,111	$1,000–$1,250	4,991	5,615
$1,250–$1,500	3,743,428	5,109,112	$1,250–$1,500	3,743	5,147
$1,500–$1,750	2,889,904	4,660,793	$1,500–$1,750	2,890	4,696
$1,750–$2,000	2,296,022	4,214,203	$1,750–$2,000	2,296	4,305
$2,000–$2,250	1,704,535	3,602,861	$2,000–$2,250	1,705	3,623
$2,250–$2,500	1,254,076	2,968,932	$2,250–$2,500	1,254	2,978
$2,500–$3,000	1,475,474	4,004,774	$2,500–$2,750	856	2,247
			$2,750–$3,000	619	1,780
$3,000–$3,500	851,919	2,735,487	$3,000–$3,500	852	2,769
$3,500–$4,000	502,159	1,863,384	$3,500–$4,000	502	1,882
$4,000–$4,500	286,053	1,202,826	$4,000–$4,500	286	1,216
$4,500–$5,000	178,138	841,766	$4,500–$5,000	178	846
$5,000–$7,500	380,266	2,244,406	$5,000–$6,000	192	1,056
			$6,000–$7,000	132	858
			$7,000–$8,000	112	840
$7,500–$10,000	215,642	1,847,820	$8,000–$9,000	92	782
			$9,000–$10,000	68	646
$10,000–$15,000	152,682	1,746,925	$10,000–$12,500	97	1,091
			$12,500–$15,000	56	770
$15,000–$20,000	67,923	1,174,574	$15,000–$17,500	39	634
			$17,500–$20,000	29	544
$20,000–$25,000	39,825	889,114	$20,000–$25,000	40	900
$25,000–$30,000	25,583	720,268	$25,000–$30,000	26	715
$30,000–$40,000	17,959	641,272	$30,000–$40,000	18	630
$40,000–$50,000	8,340	390,311	$40,000–$50,000	8	360
$50,000–$100,000	13,041	908,485	$50,000–$75,000	10	625
			$75,000–$100,000	3	262
$100,000 and over	5,387	1,095,544	$100,000 and over	5	1,096
Total	39,458,300	59,258,628	Total	39,458	59,677

[1] Transcribed from table 2 of *Consumer Incomes in the United States.*

The basic distribution obtained by the above method is presented in the last three columns of table 13C. The aggregate income of all consumers does not, of course, add to $59,259 million, partly because the numbers of consumer units were rounded to thousands but chiefly because midpoints were used as average incomes within each interval. The actual total is $59,677 million.

Since this distribution was used to obtain all the assumed distributions, all the sets of aggregate disbursements presented in this appendix are directly comparable, but none of them is precisely comparable to the actual set of aggregates in 1935–36; which is based upon the distribution before interpolation, shown in the first three columns of table 13C. The lack of comparability, however, is very slight, as may be seen by comparing the aggregates for the $60 billion income with the 1935–36 proportionate distribution, shown in table 2C, with those in table 7.

Aggregate Disbursements With Proportionate Distribution of Income Same as in 1935–36

For each of four total consumer incomes—$50, $60, $70, and $80 billion—it was necessary to find the number of consumer units and the aggregate income that would be at each of the 16 income levels if all incomes were multiplied by a certain constant, namely, the ratio of the assumed total consumer income to $59,677 million. The first step was to find the 15 incomes which, when multiplied by a given constant become the bounds—$250, $500, $750, etc.—separating the 16 income classes. This was easy since these 15 incomes are merely the respective bounds divided by the given constant, for, if $x \times \frac{\$70{,}000}{\$59{,}677} = \$500$, then $x = \$500 \div \frac{\$70{,}000}{\$59{,}677} = \$426$. The results were rounded to the nearest dollar.

The second step was to find the number of consumer units in each of the $15+33=48$ sub-intervals obtained by breaking down the 33 intervals in the basic distribution at the 15 incomes found in step one. Since it was assumed that consumer units were evenly distributed throughout each interval, this was done by apportioning the number of consumer units in each of the intervals to be broken in the ratio of the lengths of the two intervals. Thus—to continue the above example—since there were 4,587 thousand consumer units between $250 and $500, $\frac{426-250}{500-250} \times 4{,}587 = 3{,}229$ were put down as between $250 and $426, and $\frac{500-426}{500-250} \times 4{,}587 = 1{,}358$ between $426 and $500.

The third step was merely to combine the 48 frequencies into the 16 frequencies for the intervals which will be transformed into "Under $250," "$250 to $500," etc. These intervals were "Under $213," "$213 to $426," etc., for the $70 billion income. The combinations were made, of course, simply by addition. The resulting frequencies were the desired distribution, and the four distributions obtained in this manner were shown in percentage form in table 1C.

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[3] Except for the break of the under $250 interval at $125, where there was little evidence as to how the curve should behave. Here, the two frequencies were made to satisfy the condition that when multiplied by the respective midpoints ($62½ and $187½) they would add to the aggregate income of consumer units in the under $250 interval. The aggregate income figures were not used in splitting up the other intervals because simple formulas gave frequencies which were not smooth when graphed.

To find the aggregate income at each income level, the frequencies in 47 of the subintervals (all except $100,000 and over) found in step two were multiplied by the midpoint of their respective subintervals and the results were combined (together with the aggregate income for $100,000 and over) into the same 16 intervals as were the frequencies. The sum of the 16 figures totalled $59,677 million except for differences due to rounding.

These 16 figures are the aggregate incomes held by the 16 groups of consumer units before their incomes are multiplied by the given constant ($\frac{\$70{,}000}{\$59{,}677}$ in the case of the $70 billion income). Since each particular income is multiplied by this constant, the aggregate income at each income level is multiplied by the constant. Therefore, the aggregate incomes at the 16 income levels in the desired distribution were obtained by multiplying the figures just found by such a constant that their sum would be the assumed total consumer income. These aggregates are shown in the first four columns of table 14C.

The aggregate disbursement for each of the 16 categories was obtained by multiplying the aggregate income at each of the 16 income levels by the percent of income allocated to the category by all consumer units at that level in 1935–36 and summing over all levels. These percentages for gifts and direct personal taxes and for savings are shown in table 19A, and for the 14 categories of consumption in table 21A, except that no break-down of the "Under $500" class is given. The percentages actually used included an "Under $250" class and a "$250 to $500" class.

For the $60 billion and $70 billion sizes of total income, disbursements were obtained separately for the three thirds of the Nation. The division into thirds was made from the basic distribution shown in table 13C, again with the assumption of even distribution within the intervals. The income dividing the lower from the middle third was found to be $778, and that dividing the middle from the upper third, $1,447. The aggregate incomes received by the three thirds were $6,131, $14,229, and $39,317 in millions, totalling $59,677.

The aggregate incomes for the $60 billion size of total income were obtained by multiplying these figures by the ratio of $60,000 to $59,677, the results being $6,164, $14,306, and $39,530 in millions, totalling $60,000. The incomes separating the three thirds were obtained in the same manner, the results being $783 and $1,455. The apportionment of these aggregates by income level was taken directly from the aggregates already obtained for the $60 billion income with the 1935–36 proportionate distribution (column 2 in table 14C) the aggregate for the $750–$1,000 level being apportioned between the lower and middle thirds and

TABLE 14C.—*Aggregate income received, by income level, assuming several sizes of total consumer income and several proportionate distributions of income*

Income level	Aggregate income (in millions), assuming—									
	Same proportionate distribution of income as in 1935–36, with total income of—				Equal distribution of difference between total income of $60 billion and—		Increase in incomes of poorest groups as total income increases from $60 billion to—		Percentage of income saved held constant as total income increases from $60 billion to—	
	$50 billion (1)	$60 billion (2)	$70 billion (3)	$80 billion (4)	$70 billion (5)	$80 billion (6)	$70 billion (7)	$80 billion (8)	$70 billion (9)	$80 billion (10)
Under $250	$448	$293	$242	$201	-----	-----	-----	-----	-----	-----
$250–$500	2,270	1,701	1,383	1,137	$807	-----	-----	-----	$146	-----
$500–$750	4,339	3,586	2,871	2,330	2,836	$1,310	-----	-----	2,091	-----
$750–$1,000	5,521	5,119	4,368	3,774	5,009	3,949	$6,217	-----	5,173	$106
$1,000–$1,250	5,306	5,587	5,350	4,916	6,554	6,398	11,358	-----	7,595	5,137
$1,250–$1,500	4,630	5,171	5,634	5,447	6,876	8,043	13,882	$17,703	8,387	10,838
$1,500–$1,750	4,102	4,719	5,182	5,561	6,133	8,141	4,719	20,922	7,459	13,208
$1,750–$2,000	3,330	4,327	4,666	5,247	5,442	7,076	4,327	11,878	6,258	11,483
$2,000–$2,500	4,435	6,660	8,269	9,096	9,032	11,739	6,660	6,660	9,559	15,439
$2,500–$3,000	2,661	4,092	6,171	7,822	5,858	8,229	4,092	4,092	5,540	7,851
$3,000–$4,000	2,735	4,713	6,763	9,477	6,016	8,137	4,713	4,713	5,367	5,926
$4,000–$5,000	1,183	2,111	3,557	4,992	2,819	3,601	2,111	2,111	2,026	1,769
$5,000–$10,000	3,340	4,216	5,389	7,234	4,652	5,149	4,216	4,216	4,035	3,655
$10,000–$15,000	1,470	1,880	2,583	3,196	2,017	2,141	1,880	1,880	1,701	1,380
$15,000–$20,000	955	1,187	1,409	1,804	1,227	1,275	1,187	1,187	1,048	863
$20,000 and over	3,275	4,638	6,163	7,766	4,722	4,812	4,638	4,638	3,615	2,345
All levels	50,000	60,000	70,000	80,000	70,000	80,000	70,000	80,000	70,000	80,000

that for the \$1,250–\$1,500 level between the middle and upper thirds in such a way that the aggregate income for each third checked with the totals already found for them.

The same procedure was followed in the case of the \$70 billion income, the aggregates being obtained by multiplying the figures for the basic distribution by the ratio of \$70,000 to \$59,677. The aggregate incomes of the thirds were \$7,191, \$16,690, and \$46,119 in millions, and the incomes separating the thirds, \$913 and \$1,698.

Aggregate disbursements by thirds were obtained by multiplying the aggregate incomes by the "percentage use of income" figures exactly as in the case of the aggregate disbursements for all consumer units. The use of the additional \$10 billion of income by the three thirds was, of course, obtained by subtraction, the results appearing in table 4C.

Aggregate Disbursements with Proportionate Distribution of Income Different From That in 1935–36

For two of the assumed sizes of total consumer income—\$70 and \$80 billion—it was necessary to find the number of consumer units and the aggregate income at each of the 16 income levels with the proportionate distribution of income different from that in 1935–36. These distributions fall into three sets—those with an equal distribution of the additional income, those with increases in the incomes of the poorest groups, and those with the percent of income saved constant.

Equal Distribution of Additional Income

As shown above, the income distribution obtained by increasing the income of every consumer unit by the same number of dollars is the same as the distribution obtained by increasing the income of every consumer unit in a certain ratio and moving it a certain fraction of the way toward the mean. Using the \$60 billion income with the 1935–36 proportionate distribution as a base, the \$70 billion income can be obtained by increasing every income by one-sixth and moving it one-seventh of the way toward the mean, and the \$80 billion income, by increasing every income one-third and moving it one-fourth of the way toward the mean. This is the procedure followed except that both distributions were obtained directly from the basic distribution shown in table 13C rather than passing through the intermediate \$60 billion distribution.

The procedure for obtaining the number of consumer units and the aggregate income at each of the 16 income levels with a given percentage increase in the income of every consumer unit and a given movement toward equality consisted of the same steps as those followed when only a percentage increase in incomes was made—that is, when the proportionate distribution of income was held constant as described above. First, it was necessary to find the 15 incomes which would become \$250, \$500, etc., respectively. Taking the \$70 billion income with the one-seventh movement toward equality as an example, an income x becomes $\frac{6}{7}x+\frac{1}{7}M$ when moved one-seventh of the way toward equality[4] (using M for the mean income, $\frac{\$59{,}677 \text{ million}}{39{,}458 \text{ thousand}}=\$1{,}512.42$) and therefore when it is multiplied by $\frac{70{,}000}{59{,}677}$, we have $\left(\frac{6}{7}x+\frac{1}{7}M\right)\times\frac{70{,}000}{59{,}677}=\$1{,}000$ as a linear equation to be solved for x, giving the income which is transformed into \$1,000 under the assumed changes. The solution is $x=\$743$.

The second and third steps of finding the number of consumer units in the new intervals were precisely the same as for the first set of assumed distributions. The numbers of families in the 33 intervals in the basic distribution were split up and regrouped into the 16 desired intervals. The distributions are shown in columns 2 and 3 of table 5C.

The aggregate incomes in the 16 intervals before incomes are moved were also found in the same way as before, and the final step is the same in principle although it was more complicated in actual procedure. The aggregate income for each income group, instead of merely being multiplied by a constant, was first moved the appropriate proportion (one-seventh in the above example) of the way toward the product of the mean income (\$1,512.42) and the number of consumer units in the interval, because every consumer unit had its income moved that percentage of the way toward the mean.[5] The resulting income was then multiplied by the given constant $\left(\frac{70{,}000}{59{,}677}\right.$ in the above example).

This procedure, when applied to every income group, yielded the desired set of aggregate incomes, one for each income level. These aggregates are shown in columns 5 and 6 of table 14C.

For both the \$70 billion and the \$80 billion income distributions, the aggregate disbursements were obtained by multiplying the aggregate income at each of the 16 income levels by the percent of income allocated to each category by all consumer units at that level in 1935–36, and summing over all income levels. The aggregate disbursements are shown in table 6C.

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[4] If k is the proportional movement toward equality, then an income x becomes $x+k(M-x)=(1-k)x+kM$. It will also be noted that the order of the two changes in income has been reversed, the movement toward equality being made before the increase in income. This is justified by the fact that these two operations give the same result regardless of which is applied first.

[5] Using the same notation as before, the proof is as follows. $\Sigma[x+k(M-x)]=\Sigma x+k\Sigma(M-x)=\Sigma x+K(nM-\Sigma x)$, n being the frequency in the interval.

Increase in Incomes of Poorest Groups

Distributions for two sizes of total consumer income—$70 billion and $80 billion—were prepared under the assumption that as income advances all of the increase goes to the poorest income groups.

In the case of the $70 billion distribution, the number of families and single individuals in the income intervals above $1,500, and the aggregate incomes they received, were assumed to be the same as those for the $60 billion income with the 1935–36 proportionate distribution (shown in tables 1C, 5C, and 14C). That is, it was assumed that the entire $10 billion increase in income was received by the 68.3 percent of consumer units—nearly 27 million in all—with incomes under $1,500. This assumption increased their aggregate income from $21½ billion to $31½ billion. It was also assumed that the floor of incomes was raised to $750. The problem, therefore, was to distribute the 27 million consumer units within the three income levels between $750 and $1,500 in such a way that their aggregate income should come to $31½ billion, bringing the total income of all consumers to exactly $70 billion.

The first step was to move the 31.4 percent of consumer units with incomes below $750 up to this minimum level. To establish this income floor required less than $4 billion. More than $6 billion was available, therefore, for improving the incomes of the 36.9 percent of consumer units already in the $750–$1,500 income range and of some of the 31.4 percent raised to the $750 minimum level.

The total income of $31½ billion to be distributed among this 68.3 percent of consumer units brought the average income of the group to $1,168—an amount $43 greater than the mid-point of the income band of $750–$1,500. It was necessary, therefore, to assign more consumer units to the upper end of the income band than to the lower end.

The consumer units were therefore apportioned among the three intervals $750–$1,000, $1,000–$1,250, and $1,250–$1,500 in the ratio of 2:3:3—with 17.1 percent in the lowest interval and 25.6 in each of the higher intervals. Within the two higher intervals, they were assumed to be evenly distributed, so that the average incomes were $1,125 and $1,375, respectively. In the lowest interval, they were assumed to be rather highly concentrated at the upper end of the interval with an average income of more than $900, in order that the aggregate incomes of all levels should sum to $70 billion.

In the case of the $80 billion income distribution, it was assumed that the entire $20 billion increase over the $60 billion income was received by the 81.5 percent of consumer units with incomes below $2,000, bringing their aggregate income from $30½ billion to $50½ billion. It was assumed further that the floor of incomes was raised to $1,250.

The distribution for $60 billion according to the 1935–36 proportionate distribution showed 58.8 percent of all consumer units with incomes below $1,250. To establish an income floor of $1,250 required less than $13 billion. This left more than $7 billion available for improving the incomes of the 22.7 percent already in the $1,250–$2,000 income range and of some of the 58.8 percent raised to the $1,250 level.

The total income of $50½ billion to be distributed through the $1,250–$2,000 income range gave an average income of $1,569—an amount $56 less than the mid-point of the range. It was necessary, therefore, to assign more consumer units to the lower end of the range than to the upper end.

The 81.5 percent of consumer units was therefore apportioned among the three income intervals $1,250–$1,500, $1,500–$1,750, and $1,750–$2,000 in the ratio of 2 : 2 : 1, with 32.6 percent in each of the lower income intervals and 16.3 percent in the highest interval. Within the two lower intervals they were assumed to be evenly distributed, so that the average incomes were $1,375 and $1,625, respectively. In the highest interval they were assumed to be rather highly concentrated at the lower end of the interval, with an average income of a little less than $1,850, in order that the aggregate incomes of all levels should sum to $80 billion.

For both the $70 billion and the $80 billion income distributions, the aggregate disbursements were obtained (as with the preceding type of distribution) by multiplying the aggregate income at each of the 16 income levels by the percent of income allocated to each category by all consumer units at that level in 1935–36, and summing over all income levels. The aggregate disbursements for these distributions are shown in table 7C.

Proportion of Income Saved Constant

As was indicated above, distributions were also prepared to calculate the effects of holding constant the proportion of income devoted to savings. This set of distributions covered incomes of $70 and $80 billion; and for each size it was necessary to find distributions of consumer units such that the ratio of total consumer savings to total consumer income should be the same as with an income of $60 billion and the 1935–36 proportionate distribution—namely 10.17 percent.

The method of obtaining these two distributions was to combine a flat percentage movement of the income of every consumer unit toward the mean income for all units with multiplying all incomes by a constant.

Since there was no simple way of calculating the movement toward equality which would produce a given percent of income saved, it was necessary to resort to a trial-and-error method for approximate solutions. One distribution was obtained producing slightly too large a volume of savings—that is, a figure greater than the desired percent of income saved—and a second producing a volume slightly too small. The 16 aggregates—one for each category of disbursement—were obtained for each distribution, and the final aggregates presented in this report were obtained by linear interpolation between the two. In practice this procedure turned out to be both quick and accurate due to the very "smooth" relation between percent movement toward equality and aggregate disbursements.

The procedure for obtaining the number of consumer units and the aggregate income at each of the 16 income levels with a given movement toward equality and a given percentage increase in the incomes of consumers was explained above in the case of the "equal distribution of additional income". There the distribution of a $70 billion income was obtained with a movement 14 percent (or, more precisely, one-seventh) of the way toward the mean.

In the case of the $70 billion income with the percent of income saved constant, distributions moved 25 percent and 30 percent toward equality were obtained, the former yielding savings of $7,207 million and the latter $6,887 million. Since $7,120 million was the desired amount (10.17 percent of $70 billion), $\frac{87}{320}$ of the difference between the aggregates for each category found from the two distributions was subtracted from the aggregates for the 25 percent more equal distribution to obtain the final results presented in table 8C. The percentage movement toward equality is thus $26\frac{23}{64}$ percent. Interpolation between the frequency distributions was done in the same way, yielding the results presented in table 5C, and interpolation between the aggregate incomes by income level yielded the results presented in table 14C. Thus, it is not precisely true that the distributions of consumer units presented in table 5C produced the aggregates shown in table 8C, but the approximation is extremely close.

For the $80 billion income with percent saved constant, the two distributions obtained were 50 percent and 52 percent more equal than in 1935–36, and the savings figures were $8,059 million and $7,931 million. The desired volume of savings was $8,137 million—a figure greater than both figures from the trial-and-error calculations. The movement toward equality was thus less than 50 percent—actually $48\frac{25}{32}$ percent. The interpolations thus became extrapolations, but the arithmetic procedure was the same as with the $70 billion income.

For the $70 billion income, aggregate disbursement figures were obtained separately for each third of the Nation. The aggregate disbursements for the 25 percent and for the 30 percent more equal distributions were obtained by thirds in the same way as for the $60 billion income with the 1935–36 distribution. An explanation of the steps taken with the 25 percent more equal distribution will suffice. The aggregate income received by each third was calculated by multiplying the aggregate income received by it in the basic distribution by $\frac{70{,}000}{59{,}677}$ and moving the resulting amount 25 percent of the way toward $23,333 million (one-third of $70,000 million). The resulting figures were the aggregate incomes received by each third of the Nation, namely, $11,226, $18,351, and $40,423 in millions, totaling $70,000 million.

The apportionment of these aggregates by income level was taken directly from the aggregates already obtained for the $70 billion income with a proportionate distribution 25 percent more equal than in 1935–36. The breaks between the lower and middle thirds and between the middle and upper thirds were $1,128 and $1,716, respectively (obtained by multiplying $778 and $1,447 by $\frac{70{,}000}{59{,}677}$ and moving the resulting figures 25 percent of the way toward $\$1{,}774=\frac{\$70{,}000\text{ million}}{39{,}458\text{ thousand}}$). Hence, the aggregates for the $1,000-$1,250 and the $1,500-$1,750 levels were split up, part of the former going to the lower and part to the middle third, and part of the latter going to the middle and part to the upper third, in such a way that the aggregate income for each third checked with the totals already found for them.

Aggregate disbursements for both the 25 percent and for the 30 percent more equal distributions by thirds were obtained by multiplying the aggregate incomes by percentage use of income figures as in other cases. The aggregates for the $26\frac{23}{64}$ percent more equal distribution were obtained by the interpolation procedure already explained, and the differences and percentages calculated from them were presented in table 11C.

Comparison of the Four Sets of Assumed Distributions

Since the description of the methods used in obtaining the four sets of assumed distributions has now been completed, we can summarize by comparing the decile distributions, which show the proportion of income received by each tenth of the Nation's consumer units. These figures are presented in table 15C.

The first column of table 15C shows the share of total income received by each decile in 1935–36. As was pointed out above, these same shares apply to all four of the assumed distributions in the first set (presented in Section 2 of this appendix) except for the very minor changes made in setting up the basic distribution.

Columns 2 and 3 show the proportionate distributions of $70 and $80 billion incomes on the assumption that the increases over $60 billion are distributed to every consumer unit in equal amount. The lower seven tenths receive somewhat greater proportions of total income than in 1935–36. The share of the lowest tenth increases most—from 1.7 percent in 1935–36 to 2.9 percent with a $70 billion income and to 3.8 percent with an $80 billion income. The upper three tenths receive somewhat smaller proportions of total income despite the fact that they receive larger absolute amounts. The highest tenth, in fact, declines from 36.2 percent in 1935–36 to 32.4 percent with a $70 billion income and to 29.6 percent with an $80 billion income.

Table 15C.—*Share of each tenth of Nation's consumer units in aggregate income, assuming several sizes of total consumer income and several proportionate distributions of income*

Proportion of families and single individuals	Percentage of aggregate income assuming—						
	Same distribution of total income as in 1935–36	Equal distribution of difference between total income of $60 billion and—		Increase in incomes of poorest groups as total income increases from $60 billion to—		Percentage of income saved held constant as total income increases from $60 billion to—	
		$70 billion [1]	$80 billion [1]	$70 billion	$80 billion	$70 billion [1]	$80 billion [1]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Highest tenth	36.2	32.4	29.6	31.4	27.5	29.3	23.4
Ninth	14.5	13.9	13.4	12.5	11.0	13.3	12.3
Eighth	11.5	11.3	11.1	9.7	9.1	11.1	10.8
Seventh	9.3	9.4	9.5	8.3	8.6	9.5	9.6
Sixth	7.5	7.9	8.1	7.7	8.2	8.1	8.7
Fifth	6.6	7.1	7.5	7.2	7.9	7.5	8.3
Fourth	5.5	6.1	6.6	6.6	7.5	6.7	7.7
Third	4.3	5.1	5.7	6.1	7.1	5.8	7.1
Second	2.9	3.9	4.7	5.5	6.7	4.8	6.4
Lowest tenth	1.7	2.9	3.8	5.0	6.4	3.9	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] The decile distributions shown in columns 2, 3, 6, and 7 differ slightly from the distributions from which the aggregate disbursements were calculated. The decile distributions were computed directly from the 1935–36 distribution shown in column 1 while the aggregate disbursements were calculated from the income distributions derived from the basic distribution described above and shown in table 13C.

Columns 4 and 5 show the decile distributions for $70 and $80 billion incomes, assuming that the increases over $60 billion are all given to the poorest consumer units. These distributions are, of course, more extreme than the previous two.

Compared with the 1935–36 distribution in the first column, they result in quite substantial increases in the proportions of total income received by the poorest three tenths, with smaller increases for the next three groups. Since the upper tenths do not share in the increases in total income, but receive the same dollar amounts as with the $60 billion income, their relative shares of the $70 and $80 billion incomes decline.

Finally, columns 6 and 7 show how far the proportionate distribution of income would have to be moved toward equality in order that the $70 billion and $80 billion total incomes shall produce the same percent of total income saved as the $60 billion income with the 1935–36 proportionate distribution. The $70 billion distribution is a shade more equal than the $80 billion income with equal distribution of the additional income, while the $80 billion distribution is much more equal—about comparable with the $80 billion income with increases in the incomes of the poorest groups.

It should be pointed out that this last set of distribution at the $70 and $80 billion income levels requires not only that income be added to the lower income groups, but that income be subtracted from the higher income groups. In this respect it differs from the other two sets of distributions considered, in which the incomes of the highest income groups either remain unchanged or receive some share of the increases in total income.

It is interesting to note that four of the six proportionate distributions differing from that in 1935–36 show a uniform progression toward equality—namely, columns 2, 3, 6, and 7, in that order. All of these distributions were obtained by moving the 1935–36 proportionate distribution a flat percentage of the way toward the line of equal distribution, where every tenth of consumer units receives 10 percent of total income.[6] The percentage movements rounded to the nearest percent are respectively 14, 25, 26, and 49.

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[6] As regards columns 2 and 3, it was shown above that the distributions obtained by adding the same number of dollars to the income of every consumer unit are the same as those obtained by increasing all incomes proportionately and then moving them a flat percentage of the way toward the mean income.

The distributions of $70 and $80 billion shown in columns 4 and 5 are of a somewhat different nature from the other distributions presented in table 15C. They were made simply by adding to the incomes of the lowest tenths, leaving the incomes of the highest tenths untouched. As indicated above, this resulted in a decline in the relative shares of the highest income groups, even though their absolute incomes remained the same.

In conclusion it seems well to repeat the warnings already emphasized in Section 3 of this appendix, in order to avoid misinterpretations of the distributions presented here. These distributions are purely hypothetical. They were assumed for wholly analytical reasons with no reference whatever to the way in which income "ought" to be distributed or to the changes in distribution which might be feasible. The movements toward equality were assumed in order to bring out the story clearly—the effects of size and proportionate distribution of total consumer income on consumer expenditures and savings under several very arbitrary assumptions outlined in the discussion.

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